14696

EX LIBRIS COLL·MED·PHILAD·INSTIT·A·D·MDCCLXXXVII·

NON SIBI SED TOTI

Presented by

Exchange

THE

AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF

MEDICINE AND SURGERY.

EDITED BY

DAVID W. YANDELL, M. D.
Professor of the Science and Art of Surgery and Clinical Surgery, University of Louisville.

AND

THEOPHILUS PARVIN, M. D., LL. D.
Professor of Obstetrics and the Medical and Surgical Diseases of Women, Medical College of Indiana.

LOUISVILLE:
JOHN P. MORTON AND COMPANY.
PUBLISHERS.

LIST OF CONTRIBUTORS.

S. S. BOYD, M. D.
F. J. BUMSTEAD, M. D.
JOHN CHIENE, M. D., F. R. C. S. E.
J. W. COLLINS, M. D.
GEORGE COWAN, M. D.
A. G. CRAIG, M. D.
R. M. DELZELL, M. D.
J. MILNER FOTHERGILL, M. D., Edin.
E. S. GALBRAITH, M. D.
CHARLES C. F. GAY, M. D.
E. P. GILPIN, M. D.
J. B. GROVE, M. D.
J. F. HIBBERD, M. D.
J. W. HOLLAND, M. D.
M. H. JORDAN, M. D.
DANIEL H. KITCHEN, M. D.
FRANCIS MASON, F. R. C. S. L.
J. N. McCORMACK, M. D.
JAMES I. ROOKER, M. D.
OSCAR T. SCHULTZ, M. D.
W. J. SCOTT, M. D.
T. GAILLARD THOMAS, M. D.
W. W. VINNEDGE, M. D.
WILLIAM L. WHITTED, M. D.

14696

Digitized by the Internet Archive
in 2013

http://archive.org/details/americanpract20loui

INDEX.

Original Communications.

Abortion for Relief of Uncontrollable Nausea and Vomiting ... 305
Abscess, Mammary, How to Prevent ... 310
Alcoholic Stimulation, Remarks on ... 146
Amputation, Spontaneous, at Shoulder-Joint ... 210
Catheter, On the Employment of the ... 193
Chloral Poisoning, Fatal Result of ... 306
Correspondence, Foreign, London Letters ... 37, 98, 157, 241, 312, 372
Diphtheria ... 30
Duchenne's Disease ... 200
Fever, Yellow, Nature and Source of Epidemic at Louisville in 1878 ... 352
Gastrotomy for Relief of Internal Strangulation of the Bowel—Recovery 130
Ovarian Cyst, Remarkable Dermoid ... 209
Paralysis, Oil of Turpentine in ... 368
Pneumonia, One Hundred Cases of ... 88, 139
Puerperal Convulsions, Fatal ... 204
Sexual Hypochondriasis ... 19
Surgery, Elements of (Chiene) ... 9, 65, 275, 339
Surgery of the Face, Lectures on ... 212
Trichina Spiralis, Five Cases of ... 135
Uterine Fibroids, Cases of Submucous, Removed by the Spoon-Saw ... 1
Uterine Displacements, A New Theory as to their Mechanism and Proper Treatment ... 285
Uterus, Emmet's Operation for Lacerated Cervix of ... 359
Water, Impure, Diseases Caused by ... 34

Reviews.

Abdomen, Diseases of 44
Anæsthesia, Advantages and Accidents of Artificial 239
Anatomy, Demonstrations of 46
Bladder and Urethra in Women, Diseases of 111
Chemistry, Elements of 324
Chemistry, General, Medical and Pharmaceutical, (Attfield) 43
Chemical Principles, First Step in 385
Day-Book, Physician's Pocket 386
Dispensatory, The National 113
Dose-Book, Multum in Parvo Reference and 386
Electricity in its Relation to Medicine and Surgery 45
Gynecology, Lessons in 105
Gynecology, Principles and Practice of 379
Hygiene and Public Health, A Treatise on 323
Infant Feeding 388
Intestines and Peritoneum, Diseases of 45
Medicine, Clinical Treatise on 387
Neurological Contributions 163
Obstetric Procedure, Hints in the 114
Paresis of the Sympathetic Centers 115
Pocket Therapeutics and Dose-Book 385
Poisons, Memoranda on 384
Posological Table 170
Skin, Atlas of Diseases of, Parts V and VI 387
Skin, The Pharmacopœia of the Hospital for Diseases of the 165
Stomach, On Diseases of the 383
Surgery, Principles and Practice of Operative 388
Therapeutics and Materia Medica, A Guide to 167
Throat and Nasal Cavities, Handbook of Diagnosis and Treatment of 169
Throat and Nasal Passages, Diseases of the 166
Transactions of the American Gynecological Society for 1878, Vol. III 223
Transactions of the Indiana State Medical Society for 1879 318
Transactions of the Pathological Society of Philadelphia, Vol. VIII 326
Urine, Guide to Practical Examination 47
Urine, A Guide to the Qualitative and Quantitative Analysis of the 325

Visiting List, Physician's 386
Women, Diseases of (Tait) 388

Clinic.

Antipyretic Remedies 48
Blistering as a Remedy 120
Bursitis, Patellar, Seton in Chronic 118
Calcium, Phosphate, Therapeutic Uses of 121
Delirium Tremens, Treatment of 249
Dipsomania and Drunkenness 181
Dysentery, Infant, Local Treatment of 116
Electro-Therapeutics, Two Important Points in 177
Fever, Enteric, Treatment of 389
Fever, Yellow, Urine in 171
Hernia, Strangulated Congenital Inguinal 122
Hemostatic in Surgery, Hot Water as a 395
Mammary Abscess, Method of Preventing 179
Marriage, Influence of, upon Rate of Mortality 54
Medical Reclamation from the Domain of Surgery 329
Mouth and Throat, Value of Dependent Position of Head in Operations on the 394
Nævi, Tattooing of 392
Naso-Pharyngeal Catarrh 330
Neurotic Disturbance Relieved by Glasses 50
Nitrite of Amyl 250
Parovarium, Cystic Tumor of 124
Pertussis, Hemorrhages in 327
Pneumonia, Aconite in 53
Syphilis, Chloride of Sodium with Corrosive Sublimate Injections 119
Testicle, Lymphadenoma of 123
Toothache, Remedy for 252
Uterus, Amputation by Elastic Ligature of the Inverted 332
Vaginismus, Suppositories in 396

Notes and Queries.

Air Passages, Foreign Bodies in 61
American Medical Association, 1879, Presidential Address before 64

At Atlanta ... 57
Brain Work, Influence of, on Development of Cranium ... 128
Byford, Professor, An Honor to ... 127
Chloral Hydrate, Preparations of ... 337
Colleges, Medical, in Indiana ... 253
Contributors, To ... 64
Corporal Punishment ... 185
Doctors, Female ... 125
Dr. Brodie's Dilemma ... 126
Dr. Hibberd's Circular ... 256
Dr. Weatherly's Horse ... 127
Errata ... 63
Fever, Yellow, Dr. Cornett on ... 125
Fever, Yellow ... 335
Gross, Prof. S. D., Complimentary Dinner to ... 402
Hypodermic Injection of Morphia ... 258
Iodine, Churchill's Tincture of ... 255
Jenks, Dr. E. W ... 64
Le Médecin Malgré Lui ... 62
Long, Dr. Crawford W., Honors to ... 192
Louisville Medical Herald ... 64
Marguerite Malaure ... 338
McDowell, Ephraim, Memorial Oration in Honor of ... 399
Medical Absurdities ... 191
Medical Editors, Dinner to ... 63
Medical Legislation ... 62
Medical Hero, A ... 400
Medical Society, Tri-State ... 191
Midwifery, London Practice of ... 333
Reasonable Doubt ... 126
Sciatica, Galvanism in Acute ... 257
Skin, Lectures on Diseases of ... 258
Success—What is it? ... 127
Syphilis: Its Treatment and Curability ... 188
Tenting—What is it? ... 64
Uterus, Acute Inversion of ... 402
We Have Changed All That ... 183
Wright, Dr. M. B., Death of ... 186

THE AMERICAN PRACTITIONER.

JULY, 1879.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

SIX CASES OF SUBMUCOUS UTERINE FIBROIDS REMOVED BY THE SPOON-SAW.

BY T. GAILLARD THOMAS, M. D.

On the thirtieth of January, 1879, I read before the New York Academy of Medicine, and subsequently published in the Archives of Medicine, a paper entitled, "A New Method of Removing Interstitial and Submucous Fibroids of the Uterus." Since that time I have operated upon six additional cases, which I now publish with the intention of still further illustrating the subject, and urging the claims of a procedure, which in my hands has proved very far superior to methods which I have previously employed, and simplified a surgical process hitherto surrounded by great difficulties and serious dangers.

Before employing this plan and while relying upon excision, ligation, torsion, avulsion, écrasement, etc., I dreaded to meet with such cases, feeling ill supplied with means for meeting the difficulties and avoiding the dangers incident to attempts at removal. Now I meet with them with pleasure, and deem the operation for their removal a simple, easy, and certain matter.

Every case reported in this and in my former paper upon this subject has been witnessed by a number of spectators, medical men of large experience, and in no single instance has the procedure failed to strike the observer with surprise at its efficiency and simplicity. So impressed was I with this that in my former paper I boldly expressed the conviction that it was destined to supersede all other methods for the removal of interstitial and submucous fibroids. Enlarged experience has increased my faith in this position, and rendered me more decided in my advocacy of the claims of the method.

Thus far I have met with no accident which could be attributed to its use, although it will be observed that most of the cases related in my two papers are grave, and some of them, even desperate ones. Indeed, I am inclined to say that several would have been almost necessarily fatal if operated upon by any one of the old methods. In speaking thus I know that I take a bold position, but I do not believe that I claim more than further experience will demonstrate as warrantable.

By all the old methods great difficulty arises in reaching the pedicle, and the seed is sometimes sown which ripens into septic endometritis, so commonly the origin of fatal septicemia; or the presenting and most accessible part is cut away, leaving those parts most difficult of attainment to undergo putrefaction and absorption; or direct injury is done to the endometrium by efforts with instruments used to ensnare or cut the tumor; or where the very dangerous and objectionable plan of inducing sloughing is adopted, blood poisoning is directly and immediately established. Even, too, where complete success crowns the use of the old methods, so much time, effort, and exposure is involved in its attainment, that not rarely the patient sinks from exhaustion or shock. Every one who has either made, or witnessed, the efforts often required to ensnare a submucous fibroid inside the uterine cavity, will readily appreciate how likely the nervous system is to be prostrated in consequence of them.

The spoon-saw prevents this tendency by its rapidity of action, its control of hemorrhage by laceration of the tissues, and the fact that it nowhere invades the uterine cavity except at the points where it severs the attachments of the tumor and allows it to begin its descent. In fixing the chain of an écraseur around the base of a sessile tumor high up in the uterus, twenty or thirty minutes are often spent, and every additional minute spent in manipulations above the os internum uteri is an additional exposure, of no insignificant kind, of the life of the woman, exhausted as she usually is by hemorrhage, pain, leucorrhea, digestive disorders, and mental anxiety.

Since the publication of my first paper I have operated only upon the cases here presented, and three others, also successful, but which were so insignificant in character as to render them unworthy of record. Such cases as the ones which I now proceed to relate can be rendered intelligible only by illustrations. These I have made as literal as I possibly could, and I feel sure that they are exceedingly truthful in their representation of facts.

Case I. Mrs. B. called upon me with the statement that for four years past she had suffered very much from menorrhagia and occasionally from metrorrhagia. She was the mother of five children, and up to four years ago had been a robust and healthy woman, but since then had been weak, exhausted, nervous, and easily fatigued. She had consulted a number of physicians, but thus far had got no relief, each telling her that a tumor existed high up in the uterus, which could not with any degree of safety be removed. About three months before her visit to me she had been taken with violent expulsive pains, and a short time after their cessation she had consulted a female practitioner, who had discovered a tumor protruding from the os externum, and advised her to seek the aid of a surgeon for its removal. Fig. 1 represents so perfectly what I discovered upon examination, that I shall not go into detail further than to say that the tumor was as large as a large hen's egg, and lay completely in the vagina, except its pedicle or stem, which ran up above the os internum uteri.

Introducing a Sims's speculum, and seizing the tumor with the vulsellum forceps, I applied the spoon-saw gently to the pedicle, and with great ease and rapidity cut it away completely from its uterine attachment. Very little blood was lost, and no difficulties presented themselves in the removal of the growth. The operation was witnessed by Drs. Fordyce Barker, J. Clark Thomas, and S. Beach Jones. The patient rapidly and completely recovered.

CASE II. Mrs. L., a Cuban lady, aged thirty-five years, the mother of three children, called upon me on her way to the baths of Germany, which she was visiting on account of profuse uterine hemorrhage which had lasted for three or four years. The uterus had been examined she said, and prolapsus had been found to exist, but no medication which had been adopted had succeeded in controlling the uterine flow, which had caused her to look almost as pallid as a marble statue.

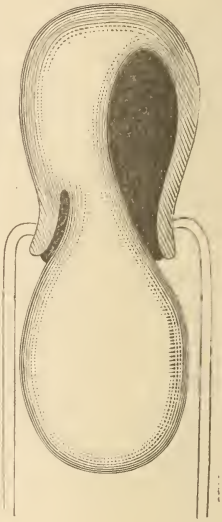


FIG. 1.

As she was merely passing through New York, and had been induced to come and see me only to gratify a solicitous friend, she strongly resisted a vaginal examination, but equally strong insistence overcame her objections, and she yielded to what I told her was a necessity. Fig. 1 represents her case perfectly, with this exception—the tumor grew from the right and not the left side. My friend, Dr. Cisneros, kindly consented to take charge of Mrs. L., who I saw would be comforted by the ministrations of one who spoke her own language, and we soon persuaded her that surgery and not spring waters was the only reliable remedy for her affection. The tumor was removed exactly as in Case I, and the patient has so far recovered as to propose continuing her journey in a few days.

CASE III. Dr. Ira B. Reid, of Harlem, called upon me with a request that I would go to that suburb and remove just such a tumor as that depicted in Fig. 1 from the uterus of Mrs. E., a multipara, aged about forty years, who was greatly reduced by uterine hemorrhage. The only difference between this tumor and the two preceding ones, consisted in the fact that it was attached anteriorly and not laterally. The operation, which was performed in the presence of Dr. Reid and five of his colleagues, ended very satisfactorily in a few minutes, and the patient fully recovered.

These cases did not follow each other in practice, but I have arranged them in sequence because one diagram so perfectly answers for them all. Let me ask by what method of those formerly employed could these tumors have been removed? The answer comes quickly—by excision, by powerful torsion, by écrasement, or by galvano cautery. No one of the present generation of gynecologists will mention the dangerous plan of ligation. It is true that by any one of these methods removal could have been accomplished, but by any one of them it would have been less rapid, more difficult, less certain, and more dangerous. By the spoon-saw it was one of the simplest operations of surgery.

CASE IV. Dr. Rodman, of Frankfort, Ky., brought to me Mrs. X, of that city, whom he had been induced to examine a short time before on account of some anomalous uterine symptoms, and in whom he had diagnosticated a submucous fibroid as large as a very large hen's egg attached to the fundus uteri. The patient, a multipara, and aged about forty-two years, looked pale and worn. Upon examination with Dr. Rodman, I agreed with him fully in diagnosis. Rather than describe the case fully, I depict it in Fig. 2, which shows the state of things very perfectly indeed.

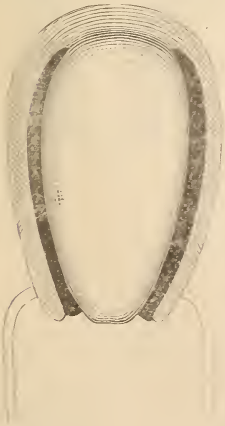


FIG. 2.

The propriety of removal being agreed

upon, the patient was anesthetized, placed upon the left side, Sims's speculum introduced, and the tumor seized and pulled upon by the vulsellum forceps. Then, when the attachment was put upon the stretch, the spoon-saw was applied and the mass cut rapidly and easily away. The patient made a complete recovery, and soon returned to her home, from which place she writes that her health is restored.

The attachment in this case was high up in the uterus, very thick and difficult of severance, and would surely have proved a great obstacle to complete removal by any of the old methods. Écrasement and galvano-cautery would have consumed much time, involved dangerous manipulations in the uterine cavity, and left a piece of pedicle for inoculation. Direct traction and torsion would with so broad a base have been dangerous resources, and he must have had excellent results from excision who would advocate that course in such a case.

Case V. Miss B., a virgin of nearly fifty years, had for one year complained of irregular menstruation and excessive flow. During this time all the hemostatics had been tried with varying results, until she had become alarmingly exsanguinated and exhausted by a steady continuance of the difficulty. After an attack of hemorrhage, marked by escape of arterial blood, Dr. A. Dubois requested me to see her.

Up to this time Miss B. had steadily refused a vaginal examination, but now she consented to it. I discovered, by touch, a part of what is depicted in Fig. 3, and at a subsequent examination under ether made out the whole by careful probing.

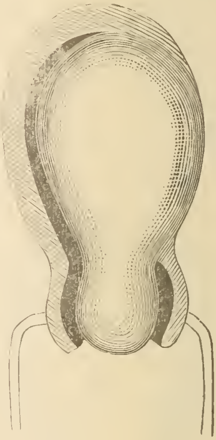


Fig. 3.

It will be seen that a fibroid of submucous character projected into the cervical canal, down to the os externum, which it distended. It was not attached at all in the cervical canal, and was free on one side of the uterine cavity. On the other side, however, it was firmly attached from the os internum to middle of fundus. The tumor was so much compressed at the os internum as to have been forced to assume the shape of an irregular figure 8. Any one at all conversant with the management of such cases will recognize in this, one, very difficult of management.

The patient being anesthetized, and Sims's speculum introduced, the projecting cervical extremity of the tumor was seized with the vulsellum forceps, and the spoon-saw being gently insinuated between the tumor and the uterus, its attachments were rapidly and easily severed, and the mass drawn away. A portion, the size of a hickory-nut, was left attached to the fundus, but this was in a similar way removed. The tumor, after removal, is shown in Fig. 4. The patient made a good recovery, no bad symptom developing itself after operation.

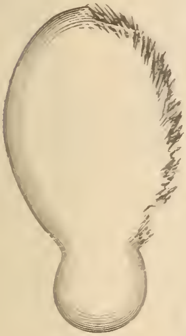


FIG. 4.

CASE VI. I was requested by Dr. Edgerton, of Middletown, Connecticut, to visit that place for the purpose of removing a large tumor which had suddenly and without previous warning been expelled from the uterus into the vagina, in Mrs. R., a multiparous woman, fifty-eight years of age, who had hitherto enjoyed excellent health, and who, at the age of forty-eight, had reached the menopause.

Fifteen or twenty years ago Dr. Marion Sims had examined Mrs. R., and found a uterine fibroid of interstitial character in her uterus. She had gradually recovered from the symptoms created by this, however, and had forgotten the fact until it had been brought to her memory by a sudden and violent succussion in the vagina while straining at stool. Dr. Edgerton, being sent for on this account, found a tumor in the vagina bearing to the uterus the relations depicted in Fig. 5. The contracting uterus had forced into the vagina the greater part of a fibroid as large as a large cocoa-nut. A large sessile base still attached it to the posterior and lateral walls of the uterus. This tumor had at its lower edge begun to slough, was giving forth a very offensive discharge, and the rise of temperature, rapidity of pulse, etc , told the tale of rapidly advancing septic absorption.

The patient being anesthetized, I, with Dr. Edgerton's assistance, applied the long forceps, and endeavored to deliver the tumor as if it were a child's head, but it was too large to pass the pelvic outlet. I then seized the mass with vulsella, and with curved scissors cut away all that existed in the vagina. Then seizing the intrauterine portion, I swept the spoon-saw around it, and very soon drew forth the whole remaining portion of the growth. The patient made a good recovery.

The peculiarities of the removal of these growths by the spoon-saw were these:—The most accessible parts of the tumors were detached by the saw, and every successive sweep brought those above more fully into reach; there was uniformly very little hemorrhage; the operation was very rapidly performed; and the operator was not fatigued by his efforts.

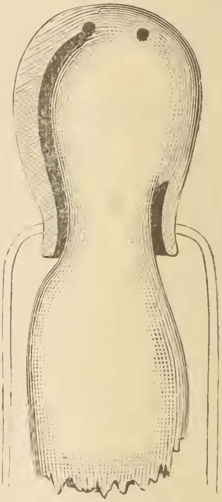


Fig. 5.

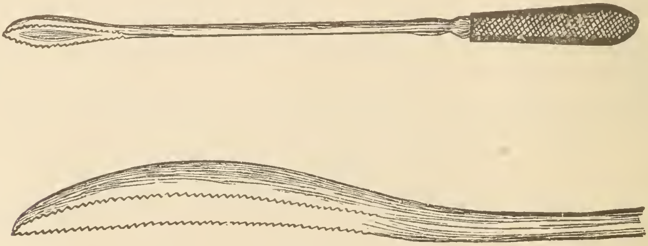


Fig. 6.

As some of the readers of the *American Practitioner* may never have seen the representation of the spoon-saw, I close this short article by a cut (Fig. 6), which gives a very good idea of it.

New York City.

THE ELEMENTS OF SURGERY.

BY JOHN CHIENE, M. D., F. R. C. S. E.

Surgeon to the Edinburgh Royal Infirmary, etc., etc.

LECTURE II.—(*Continued.*)

The Process of Repair.—First, in a Wounded Vessel; Second, in the Injured Tissues.

I have now spoken to you, gentlemen, of that which first demands your attention in any solution of continuity. I have considered it at this stage because I believe it to be the best introduction to the process of repair in the tissues after an injury. I now go on to speak of the *process of repair* as a whole. Suppose, in the case of any wound, you have at length succeeded in putting a stop to the bleeding; you have sewed together the edges of the wound; you have fixed on the dressing. What can you now do? Nothing. The remainder is a process of nature, and you can only here and there assist that process in the direction of healing. For two things may happen,—either the wound does not unite, the injury is followed by destruction and death of the part, or repair of the breach and recovery in the surrounding tissues is the result. We shall consider the former case in other connections; our present business is with the latter.

The tissues are vascular, and every solution of continuity is associated with rupture of the vessels and consequent extravasation of blood. Extravasated blood has the power of coagulating. The rare exceptions to this do not interfere with the following argument:* *Repair of every solution of continuity takes place in every instance by means of blood clot.*

---

* Hunter describes cases in which the blood, after extravasation, remains in a fluid state. This may, perhaps, occur. My observations incline me to think that it is much rarer than is generally supposed. Undoubtedly many of the cases of so-called fluid blood can be explained on one of two suppositions: First, that the blood, having clotted, breaks down and liquefies. Second, that the clot *contracts* after forming, the serum tinged with coloring matter is squeezed out of the clot by this contraction; that the serum is not reabsorbed, the clot floats free, and

This is simply a return to the teaching of John Hunter, with all the benefits of the knowledge which has been gained since his time. Hunter taught that fluid blood is a tissue "endowed with life." Life he defined as "the principle of self preservation." What he thought in regard to the function of the blood in the process of repair, may be learned from such quotations as the following:—"Extravasated blood is the bond of union." "The union of the broken parts to the intermediate extravasated blood," etc. "It is the blood and parts uniting which constitute union." "The blood so extravasated either forms vessels in itself, or vessels shoot out from the original surface in contact with it."

With these preliminary remarks, I shall now put what I have to say on this subject into the form of a series of propositions. These have been established in a separate connection, and may therefore for our purpose be called axioms. You know most of them already, but it is necessary to bring them before you in this connected way.

1. Where there is a breach in the continuity of a part, there is injury.

2. When a part is injured, there is a lowering of its vital powers.

3. When the blood is poured out, it is brought in contact with depressed tissue.

4. Coagulation of the blood is the result of contact with dead or dying matter.

5. Therefore extravasated blood coagulates.

6. The process of coagulation may be noted as consisting of three stages—(*a*) viscidity, (*b*) jellying, (*c*) contraction.

7. The color of the blood clot is an accident. "The red color of the blood is not an essential." (Hunter.)

---

it can not be felt by palpation. Fluctuation is felt, and it is said that the clot never formed. A clot floating in serum will sooner or later break down; it can not organize. When a fluid is drawn off, in cases of extravasation, does it clot as normal recent blood does? Hunter distinctly states that when blood does not clot after extravasation, inflammation is apt to ensue; in inflammation effusion is in excess of absorption. In such cases reabsorption of the serum from the contracting clot is not to be expected.

8. There is, therefore, besides the colored the colorless blood clot, as in the "buffy coat." (Hunter called the latter "coagulable lymph;" but people, in accepting the name, did not accept Hunter's explanation of the thing.)

9. The changes which take place in blood clot ending in organization, are interfered with and delayed by the presence of the colored corpuscles.

10. The essentials in a blood clot are fibrin and white blood corpuscles.

11. To obtain these essentials, liquor sanguinis and white blood corpuscles are necessary.

12. In every irritated part you have effusion of the liquor sanguinis and migration of the white blood corpuscles. The elements of the colorless blood clot or lymph are present.

13. The nature of the changes which take place in a colored clot will depend (*a*) on its surroundings, *i. e.*, the tissue in which it lies; (*b*) on its size; (*c*) on its situation, *i. e.*, whether it is exposed or not; and (*d*) on its treatment.

14. If the tissues around are healthy, if the colored clot is not of too large size, and if it is not irritated in any way, then it will organize, sooner or later, into connective tissue.

15. If it be poured out amongst unhealthy tissue, or if irritated by exposure or pressure, or if by its size it presses upon the neighboring parts, becoming itself an irritant, then it will break down, liquefy, and be rejected or absorbed, or it may remain amongst the tissues, which are condensed by pressure and form a cyst wall inclosing the fluid, once blood.

16. The process of organization into connective tissue takes place in the following way:—(*a*) the blood clot becomes adherent to the surrounding parts; (*b*) decolorization takes place; (*c*) the cell elements in the clot increase by migration and proliferation; (*d*) the clot becomes vascular; (*e*) formation of connective tissue takes place; and (*f*) the process is completed by contraction. The process is the same as in the clot which closes the cut end of an artery.

17. This process of organization is accompanied by absorption of the fluid parts of the clot, of the red blood corpuscles

and of any portion which, from the size of the clot, is beyond the reach of the living tissue from which the clot receives its vascular supply.

18. As a result of the preceding, blood clot results in either (*a*) recovery by organization; or (*b*) death and liquefaction followed by ejection or absorption.

19. This recovery is equivalent to the formation of connective tissue, assisted by contraction and absorption.

20. Blood clot, in the process of organization, has always a tendency to become like the tissue near which it lies.

21. If the primary (colored) clot does not form, or after having formed is removed, then the tissues are exposed and the migratory white blood corpuscles and the effused liquor sanguinis supply the element for the secondary (colorless) clot, coagulable or inflammatory lymph as it is called.

22. The changes which take place in the colorless clot are similar to those which occur in the colored clot. The onward progress ending in organization is more rapid; there are no colored corpuscles to be removed. The colorless clot forms a thin layer on the surface of an open wound, or between the opposed surface of the wound, the walls of which have been brought in contact after all hemorrhage has ceased. In either case the tissues from which it receives its blood supply are in close proximity, vessels shoot rapidly into it—vascular colorless blood clot, when exposed, is termed granulation tissue, which covers the tissues and protects them from external irritation, and places them in the most favorable condition for recovery from the injury.

In the foregoing propositions is traced out the history of the general process. One or two varieties of wounds claim our special attention. For purposes of study we shall take comparatively simple cases, where we can approach to an exact enumeration of all the elements. In every large wound several varieties of healing may be noted.

Subcutaneous Wounds.—We have, first, the true subcutaneous wound, known as a contusion or bruise when occurring in the soft tissues, and a simple fracture when in the bone.

There is no solution of continuity in the epidermis, although the term "subcutaneous" is sometimes applied to wounds where there is a very small opening, as in the wound made in tenotomy. Good examples of a true subcutaneous wound are found in such common occurrences as a black eye and a kick on the leg. There is a tearing of the subcutaneous tissues, and blood is freely poured out. As a consequence, we have swelling and discoloration of the part. The irritation and depression have been followed by coagulation, and in connection with the coagulum the process of healing goes on. In some cases there is simple absorption, and this may take place very rapidly, as in the case of a black eye. In other cases, if the clot is not too large, if there be no irritation and if there be proper treatment, organization sets in as described above. But if the clot be too large, the central part will break down, become liquid, and be removed. Bone heals according to the same principles.

Open Wounds with Loss of Substance.—The second class comprises open wounds, accompanied by loss of substance. The wound is necessarily exposed for a longer or shorter time. Suppose it is for a very short time, so that putrefaction is prevented. There are blood vessels cut, and as it escapes the blood dries from exposure. In general the wound is dressed with a rag or protective of some kind, which, with the dried blood, forms a complete covering. Anything which will prevent the access of air, and act as a receptacle to the escaping and coagulating blood, will do; and in the dog, an efficient protective is formed by a mixture of saliva, hair and blood. This drying produces a "scab." When the scab is removed at the end of a few days in a small wound, a new epithelial covering is found to have formed. The blood clot, protected from external irritation by the scab, commences to organize into epithelial tissue at the edges where it is placed next the epithelial tissue of the surrounding skin, and the process goes on until the whole surface of the wound is covered with a dry epithelial tissue, and the scab, not heing retained in its place, falls off. So perfect is the adaptation of the new formation to the conditions of the organism as a whole, that in a case in which there was a blood clot with part of the mass beneath and part above the level of the original surface, and of the still existing surrounding surface, I have seen the new epithelial formation cut in like a knife through the clot, shaving off the redundant portion, which, in due time, fell off as a scab. This process is termed cicatrization, and the new epithelial tissue is termed a cicatrix. In the deeper parts of the clot, the changes ending in the formation of connective tissue are taking place. In order that the blood clot may organize under a scab, it is necessary that absorption should be in excess of effusion. If this is not the case, then tension will take place under the scab, the blood clot will break down, and suppuration will occur under the scab.

There may be cases in which the open wound is exposed for a considerable time, but yet by the adoption of antiseptic precautions (the consideration of which I shall take up fully in a few days), irritation by putrefaction is thoroughly prevented. Any case of operation with antiseptic precautions, in which the edges of the wound remain apart and the clot is exposed, may be taken as an example; but I will refer to one instance in particular, which has a special interest for me as being the first in which I brought prominently forward the doctrine for which I am contending in these lectures. You will find the facts in the Lancet for July, 1875. They are, briefly stated, as follows:—I had resolved to make an experiment with a blood clot, to try its efficacy in the function of healing. A young man came to the clinical wards with a horn on his heel. I removed this, and the cavity which was left formed a kind of box, with the os calcis as the floor. I put on the protective over this cavity, took off the tourniquet, and the cavity was allowed to fill with blood The blood clot filled the cavity, with the exception of one small hollow. The blood organized and epithelium proceeded to form over the surface. On the sixteenth day I scratched the surface of the new tissue; it was vascular and bled, and we had the groove on the surface of the original clot filled up with a secondary clot. This second mass of blood passed through the same stages, and the ultimate result was a fair and sound cicatrix. It is interesting to observe that blood clot can organize on blood clot. This was the first case in which I observed this. We can, in consequence of this, make up for any insufficiency in the first clot; scratch it, after vascularization, and add to it.

If there is long exposure and no antiseptic precautions are taken, putrefaction will probably occur. Remember that I take putrefaction as merely an example of a local irritant. It is the most common one; its effect on the blood clot is due solely to its local irritant action. The blood clot in this case breaks down on the surface, and the putrefaction spreading deeper general disintegration commences. But in the deeper part of the clot, before the irritant effect reaches it, the normal process sets in. The putrefactive action going downward meets this developing tissue, in the stage of vascularization. Putrefaction can not go on in the presence of a healthy growing tissue, and therefore stops. The putrefactive products are thrown off, and the vascular lymph is exposed. The special name "granulation tissue" has been applied to this, but it is of less importance for you to know what it is called than to know that it is merely blood clot or "coagulable lymph," in the stage of vascularization. Though developed to a certain degree, yet it is still a very weak tissue, and great care must be taken of it. A slight irritation will break down the whole formation, and it is thrown off; the exudation of liquor sanguinis and white blood corpuscles takes place from the raw surface of the sore thus laid bare, lymph forms, and the process begins *de novo.* The lymph is colorless blood clot; the elements necessary for its formation are poured out from the tissue. These elements are liquor sanguinis, which supplies the fibrinogen, and white blood corpuscles, which supply the fibrinoplasten; the result is the formation of fibrin, in the meshes of which white blood corpuscles are entangled.

We have now to study the changes which take place in granulation tissue. It consists of masses of cell elements resembling the white blood corpuscles. It is richly supplied with blood vessels, which communicate with the vessels of the part on which it lies; it is surrounded by epithelial tissue, and it rests upon the connective tissue on which it has been formed. This layer of granulation tissue is seen on the surface of a healing ulcer or in an open wound. It may also be met with lining the cavity of a wound; it does not necessarily communicate with the external air; it is just blood clot or lymph which in the process of organization has become vascular, the deeper surface of which is in contact with tissue; the superficial surface is unconnected with tissue. It is to be seen in any open wound which has not healed by scabbing, or by primary blood clot.

Two changes take place: From the edge of sound epithelium a rapid development of epithelial cells goes on, projecting more and more into the center of the sac, and among the round cells in the deeper parts of the clot conversion into connective tissue corpuscles, together with the formation of fibrous tissue from the intercellular substance, produce a subcutaneous layer over which the new epithelium forms. This process, you will observe, is similar in many respects to the process which goes on under a scab, and is also cicatrization. I should observe, at the same time, that during the conversion of a granulating surface into a cicatrix, contraction occurs, and the edges of the wound are drawn together. This fact of contraction, though frequently very unpleasant when the wound is on such a part as the face, can yet be turned to good account. If we have the raw surface of the wound not comparatively flat but disposed in a trench-like form, as in the case when a wedge of tissue has been removed we have the process of conversion beginning at the bottom of the cavity, and contraction taking place then brings together the two adjacent surfaces of the wound. This goes on, and the depth of the cavity constantly grows less, until you may come right up to the surface, the epithelium forming over all. This mode of healing is termed healing by "coäptation," and occurs in any trench-like wound, as in the operation for fistula in ano. There is always a certain amount of discharge from a granulating surface. It contains a number of very weak cells, and on account of their weakness and exposure there is as it were a high death-rate among them, and great numbers can not maintain themselves at this low level of life. The discharge represents the death-rate. The granulation cells may be likened to individuals in a community:—an epidemic will increase the death-rate in a town; improper treatment will increase the amount of discharge from a granulating wound.

Incised Wounds.—I have spoken of subcutaneous wounds, and of open wounds with loss of substance. I have yet to say something of a third class—open wounds without loss of substance, or incised wounds. Such happen in cases where there is a clean cut, and the knife passes into the tissues and is withdrawn without having carried away any portion. There are two modes of repair here, at one of which I have already hinted:

First—when you have the surfaces in contact. In every case of this kind the blood is poured forth from the ends of the cut vessels, and to a certain extent remains in the slit. The circumstances are all that we could desire for an experiment, and an incised wound of this kind, when opened after a certain length of time, shows the organization at one or other of its stages. This is one variety of union by the first intention. And I wish at this point to enter my protest against the assertion of the late Dr. Macartney, of Dublin, that what he means by union by the first intention is the same as what John Hunter meant. The error is the more serious as it is countenanced by so high an authority as Paget. What Macartney means is simply this:—that if the cut surfaces are brought together immediately, all the parts which have been separated are at once brought into contact, more especially the cut mouths of the capillaries, are united again; and under these circumstances that, the circulation having received little check, time is only required for the soldering together of the broken parts—a process which is completed in a remarkably short time. Whatever may be the merits of this explanation (in my opinion it is an impossibility), it finds no support in the works of Hunter; and I refer you to his own works, and ask if a fair interpretation of his meaning will not lead you to the conclusion that by "union by the first intention" Hunter meant union by organization of blood clot.

Second. If you keep the surface of an incised wound apart, the colorless blood clot—the inflammatory lymph of Paget—covers the surfaces of the cavity. If the surfaces are then brought together, organization takes place, union takes place. If the surfaces are kept apart, the colorless clot becomes vascular, granulations form, and union takes place by coäptation and contraction. In the one case you have a wall of clot, with both sides of which the tissues are in contact, the epithelial formation forms the cope-stone. In the other you have the clot lining the sides of the cavity, lying on the tissues. The cavity heals from the bottom, the opposed surfaces come together by the contraction of the surrounding tissues, and coäptation of the surfaces takes place. The cavity decreases in depth until the surface is reached, and the epithelial formation joins the opposing edges of the skin — the wound is healed. Sometimes the epithelial formation may extend downward over the granulating surfaces, meeting the coäptation process in its upward progress. The result in such a case will be a depressed cicatrix.

I have gone rapidly over these different varieties of wounds; it is not necessary to dwell more fully on them, because my object here is not to describe the phenomena, to explain the conditions well known to every surgeon. My belief is that much obscurity has arisen in consequence of a departure from John Hunter's teaching. The healing of wounds will be more easily understood by the student on the principles that I have tried to lay down. Healing by scabbing, union by first intention, union by second intention, are essentially the same process; the alterations are the result of the treatment of the clot, colored or colorless, which has always a tendency to form until the wound is healed. The natural history of the clot will depend on its treatment and surroundings.

The healing process may be divided into two great divisions:

First. *Healing by primary (the colored) clot.*

Second. *Healing by secondary (the colorless) clot.*

Under the first head comes scabbing; under the second head comes healing by granulation, cicatrization and contraction, as in an ulcer; healing by coäption, as in a trench-like wound after a sinus is laid open. Union by first intention may be the result either of the first or second division; of the first, when the colored clot is the uniting medium; of the second, if the wound is kept open for a few hours, until all hemorrhage has ceased, until the secondary clot has formed—the surfaces being then brought together, as Liston did latterly in his amputation wounds. A granulating wound may, if aseptic, be filled with blood by scratching the granulations, and the clot which forms may organize.

It is hardly necessary to say that in almost every large wound, we may have examples of all these different varieties of healing. Their difference is more apparent than real. If I have been successful in my attempt to revive John Hunter's teaching that blood is the uniting medium, that the changes which take place in it result in a healed wound, then it follows that *Repair of every solution of continuity takes place in every instance by means of blood clot.*

SEXUAL HYPOCHONDRIASIS.

BY F. J. BUMSTEAD, M. D.

Late Professor of Venereal Diseases at the College of Physicians and Surgeons, New York.

No small proportion of the patients who apply at the office of the venereal specialist, are afflicted only with hypochondriasis relating either to the appearance or the functions of their genital organs. These patients may be divided into two classes—first, those who are ignorant of what the appearances of the genital organs normally are, or how far these appearances vary in sound persons, or who are ignorant of the influences which affect the functions of these organs in all men, even the most healthy. This class of patients, if blessed with common sense and confidence in their medical adviser, need only information to set them all right. But there is a second class of such patients, unfortunately the more numerous, whose minds are really unsound in reference to their sexual organs, who are unwilling to accept the statement of their physician that there is nothing the matter with them; who go on brooding over their imaginary trouble; who fall the ready victims of quacks; and who, after leading a miserable existence, a burden to themselves and their friends, sometimes become the inmates of a lunatic asylum or seek a suicide's death. If such patients can not be made to listen to reason, and a manly spirit can not be roused up in them, there is no hope for them, for neither medicine nor surgery can cure them.

I propose to mention some of the grounds of complaint which the subjects of sexual fear, or hypochondriasis, most commonly set forth to their physician.

With some the complaint is almost ludicrous, as for instance that one testicle hangs lower than the other—a condition which prevails with the great majority of men. Or the patient thinks that his penis or testicles are smaller than they ought to be, even when they are of very fair dimensions; or he complains of an itching or crawling sensation in the parts, which is not strange while his thoughts are constantly directed upon them. Again, it is the cheesy excretion which forms in the furrow at the base of the glans; a few herpetic vesicles appearing from time to time, or a slight eczema of the penis, or the eczema marginatum which is so often developed in the inguinal fold, that makes him unhappy.

A prominent professional man applied to me a few years ago for a little follicular abscess on the sheath of the penis, which he kept open by constantly picking at it. His mind was perfectly clear on every other subject, but was insane on this. He imagined he had syphilis, and had communicated it to his wife and children. After a few months he committed suicide.

Again, enlargement of the scrotal veins, or varicocele, is a fruitful source of terror to many men. This, indeed, may exist to such an extent as to seriously incommode the patient, and to demand surgical interference; but, in a moderate degree, it is of trivial moment, and may be relieved by wearing a suspensory bandage.

But nocturnal emissions are the complaint of most of the subjects of sexual hypochondriasis, and these they will probably ascribe to masturbation, which they ignorantly practiced for a time in former years, until they had visited one of the vile "museums of anatomy," which infest our cities, and, either there or elsewhere, had read the terrible pictures of the dire effects of this habit, which quacks are wont to conjure up. Their emissions did not occur until after they had abandoned self-abuse, and hence, with illogical reasoning, they "must be due to that practice." Even men in adult life, who have been left widowers after years of unimpaired sexual power, will ascribe nocturnal emissions—due to their present continence—to early indiscretion.

The subjects of nocturnal emissions will tell you that, after each emission, they feel weak and exhausted; that they have pain in the back; and that they find their memory failing. They are apt to imagine also that the natural moisture of the urethra is semen; that the viscid fluid which oozes from the canal on sexual excitement is semen, and that they pass semen on straining at stool or in their urine—the latter being shown by some shreds which it contains when first passed, or by the sediment which is formed on standing.

Now, these men are to be told some plain truths. Nocturnal emissions occur independently of the practice of masturbation. Some of the most frequent cases I have ever seen have been in men who had never committed self-abuse. They are incident to early manhood, especially between the ages of fifteen and thirty, and less so as life advances. At this period the genital functions are most active; the secretion of the semen is constantly going on and must find vent somewhere, like a loaded rectum or a distended bladder. For a man in the prime of life and living continently, not to have an occasional nocturnal emission, is a rare exception. The frequency of these emissions will vary consistently with health, and will depend somewhat upon the purity of the thoughts of the individual, and upon whether the sexual desires have already been excited as by masturbation, illicit sexual intercourse, or the marriage state. Hence masturbators and widowers will be more exposed to them than those who have been continent from their youth up. With regard to their frequency, it may be said in general that once a month or once a fortnight is most common, but they may take place as often as two or three times a week without detriment to the health. They are very apt to occur in groups; and this is a point to be mentioned to patients, *i. e.*, he may be free from them for several weeks, and then will have two or three on successive nights or the same night.

In ninety-nine cases out of one hundred, these emissions require no medical or surgical treatment. The chief danger from them lies in the patient attaching undue importance to them, in dwelling upon them, and making himself miserable over them. If he can be induced to give his mind and body pure thoughts and healthy exercise, and to look upon their occurrence as a physical necessity, nature will take care of the rest.

It is now many years ago since a young man, who, like most young men, had not been entirely free from self-abuse, picked up a small pamphlet written by the late Dr. Bell, superintendent of the McLean Insane Asylum, in which the sin and degradation and the evils of masturbation were set forth. He at once abandoned the habit, but nocturnal emissions occurred and became a terror to him. He called upon Dr. Bell, and his first words, after announcing his mission, were to thank him for writing the pamphlet he had read. To his surprise, Dr. Bell replied that he was sorry he had ever written it; that the first edition was exhausted, and that he would never allow another to be published. "Why?" "Because I believe that what I said of the possible evils of masturbation and nocturnal emissions was overdrawn, and has done more harm by the fears it has excited in young men, than a continuance of the practice itself would have done." "Well, what medicine shall I take?" "No medicine whatever." (Second surprise of the young man.) "I shall only lay down some hygienic rules for you to follow. You must expect your nocturnal emissions to occur from time to time, but must not mind them. They will be less and less frequent as you grow older, and if you ever get married they will cease." The young man had strength of mind enough to appreciate this advice and follow it. He found every word of the doctor's prognosis in his case to come true; and in hundreds of such cases which he afterwards met with in practice, when himself a physician, the same advice, when accepted and followed, always proved successful.

As intimated above, matrimony might be regarded as the best prescription in cases of nocturnal emissions; and it *is* the best prescription whenever practicable, under such conditions of mutual attachment, etc., which are necessary to make married life happy. To marry simply for the sake of sexual intercourse is likely to lead to greater unhappiness than can ever be caused by nocturnal emissions.

Illicit sexual intercourse as a substitute for matrimony, is never to be recommended—first, because it is morally wrong, and the physician would take upon himself a fearful responsibility in advising it; and second, because the excesses, which fornication always leads to, have an effect directly opposite to the one desired. In an admirable lecture—Clinical Lectures and Essays by Sir James Paget, London, 1875—on sexual hypochondriasis, Sir James Paget says:—"Many of your patients will ask you about sexual intercourse, and some will expect you to prescribe fornication. I would just as soon prescribe theft or lying, or anything else that God has forbidden. If men will practice fornication or uncleanness, it must be of their own choice and on their sole responsibility. We are not to advise that which is morally wrong, even if we have some reason to think a patient's health would be better for the wrong-doing. But in cases before us, and I can imagine none in which I should think differently, there is not ground enough for so much as raising a question about wrongdoing. Chastity does no harm to mind or body, its discipline is excellent; marriage can be safely waited for; and among the many nervous and hypochondriacal patients who have talked to me about fornication, I have never heard one say that he was better or happier for it; several have said that they were worse, and many I know have been made worse."

In all cases of frequent nocturnal emissions, the genital organs should be examined, and, whether phimosis exists or not, if the prepuce be long and redundant, circumcision is to be recommended. A very marked varicocele may also render surgical interference desirable.

The hygienic rules to be given to the patient are very simple. It is better that the most substantial meal in the twenty-four hours should be taken at noon; the supper should be light, and food and drink be entirely avoided in the evening; the bed-chamber should be well ventilated, a hair mattress preferred to a feather-bed, and much covering avoided. The patient should sleep upon his side, and not upon the back; a small pillow placed between the knees, so as to separate the thighs and prevent the scrotal organs from becoming heated, is sometimes desirable; and the patient should rise as soon as he wakes, emissions occurring most frequently during the semi-consciousness of the early morning nap.

Tobacco in every form should be prohibited, since it not only increases the general irritability of the nervous system, but appears to have a direct influence in diminishing the tone of the genital organs, and thus favoring seminal emissions.

Above all, as already stated, the mind of the patient should be distracted from his complaint by constant occupation, and his general health be promoted by a plain but nourishing diet, and by daily outdoor exercise, not carried to fatigue, since it is found by experience that when the strength is exhausted, an emission is more likely to occur.

Many of these patients also have constipated bowels, and means should be taken to secure a daily stool.

As a rule, no other measures than the above are required. It is to be understood, however, that any weakness and irritability of the nervous system may require the administration of tonics, a change of climate, etc. For this purpose I have found the two following prescriptions of good service:

			Grammes.
℞	Ferri et quiniæ citrat., . . .	ʒ iij	12.
	Strychniæ sulph., ...	gr. j	.06
	Acidi phosphoric. dilut., . .	℥ ss	15.
	Syrup. aurantii, ...	℥ ij	75.
	Aquam ad., ...	℥ iv	145.

M. et sig. A teaspoonful (5.00) in water after each meal.

			Grammes.
℞	Strychniæ sulph., ...	gr. j	.06
	Acidi phosph. dilut., . . .	℥ iij	90.

M. et sig. A teaspoonful (5.00) three times a day after eating.

The tincture of the chloride of iron and also ergot, have been supposed, and I think justly so, to have a special tonic effect upon the genital organs; but they must be given in large doses, as for instance from half a drachm to a drachm (2.00–4.00), of either the tincture of iron, or the fluid extract of ergot (Squibb's), in water after each meal. They may be combined as in the following prescription:

			Grammes.
℞	Tr. ferri chloridi, ...	℥ iij	90.
	Ext. ergotæ fl. (Squibb's), .	℥ iij	90.

M. et sig. A teaspoonful (5.00) in water after each meal.

As a direct means of diminishing the frequency of the emissions, however, the following is often found to be most efficacious:

			Grammes.
℞	Potassii bromidi, ...	℥ j	30.
	Tr. ferri chloridi, ...	℥ j	30.
	Aquæ, ...	℥ iij	90.

M. et sig. From one to two teaspoonfuls (5.00–10.00), in water, after each meal and at bedtime.

Mention has already been made of the advisableness of circumcision when the prepuce is long. It may also be found, upon the introduction of a sound, that the urethra is oversensitive, especially in the prostatic region. In such cases, the introduction of a cold sound of full size, at first every third or fourth day and afterward with greater frequency, will generally afford relief to the hyperesthesia. I sometimes inject into the prostatic urethra about ten drops of a solution of nitrate of silver of the strength of twenty grains (1.30) to the ounce (30.00) of water, by means of a deep urethral syringe, or Guyon's flexible catheter and syringe. The severe cauterization with the *porte-caustique* of Lallemand should by all means be avoided.

In one severe case of nocturnal emissions, occurring several times every night, Professor J. H. Pooley* made a perineal incision, similar to that for median lithotomy, into the urethra just at the apex of the prostatic gland, and diverted the urine from its natural channel for a time. The result is reported to have been successful, but whether due to the mental or physical effect of the operation may be questioned.

A few words are still necessary with regard to the special complaints made by these patients to their medical adviser, and which have for the most part been enumerated. Trifling as they may appear to him, they should yet be fully explained to them. The lassitude and backache which they experience after an emission, is nothing more than any person of impaired nervous power would feel after a long walk or other exercise. Their loss of memory is purely imaginary. They should be told that the natural condition of the urethra is one of moisture, like the inside of the mouth; that the amount of moisture will vary at different times; that it is especially liable to be increased by the erethism, occurring either with or without the knowledge of the patient during the hours of sleep, and hence is most perceptible in the morning on rising; that it is perfectly natural in men as in the lower animals to have the end of the penis smeared with a clear viscid fluid when under sexual excitement (nature's object probably being to facilitate intromission); that a cloud or sediment will form in the most normal urine when allowed to stand for a few hours, and that no pair of optics ever born, unassisted by the microscope, could discover the presence of semen. But even should it occur, as it sometimes does, that a fluid actually containing spermatozoa, is pressed out from the canal, especially on straining in passing a hard stool, it is nothing more than that overflow from the vesiculæ seminales, to which continent persons in robust health are liable. Spermatozoa left in the canal after such exertion, and particularly after a wet dream during the night, will naturally be washed away by, and be found in the urine the next time it is passed.

---

* New York Journal of Medicine, Vol. XXVIII, 1878, p. 302.

The picture that I have given of masturbation and seminal emissions is very different from the one drawn by Lallemand and by the charlatans of the present day, who, in their circulars, represent impotence, disease of the heart, consumption, paralysis, insanity and idiocy as a few of the consequences of self-abuse, which can only be cured by some nostrum of which they hold the secret. Masturbation is injurious, degrading and beastly enough, not to require to be painted in any colors which are not consistent with truth.

I have taken occasion to make inquiries of some of the most eminent physicians of our insane asylums, as to what extent masturbation should be regarded as a cause of insanity, and they have expressed the decided opinion that it was mental weakness that led to masturbation, and not masturbation that led to mental weakness and insanity. Paget's words on this point are worth quoting:—"You may teach positively that masturbation does neither more nor less harm than sexual intercourse practiced with the same frequency in the same conditions of general health and age and circumstance. Practiced frequently by the very young, that is at any time before or at the beginning of puberty, masturbation is very likely to produce exhaustion, effeminacy, over-sensitiveness, and nervousness; just as equally frequent copulation at the same age would probably produce them. Or, practiced every day, or many times in one day, at any age, either masturbation or copulation is likely to produce similar mischiefs or greater. And the mischiefs are especially likely or nearly sure to happen and to be greatest, if the excesses are practiced by those who, by inheritance or circumstances, are liable to any nervous disease—to 'spinal irritation,' epilepsy, insanity, or any other. But the mischiefs are due to the quantity, not to the method, of the excesses; and the quantity is to be estimated in relation to age and the power of the nervous system. I have seen as numerous and as great evils consequent on excessive sexual intercourse as on excessive masturbation; but I have not seen or heard anything to make me believe that occasional masturbation has any other effects on one who practices it than has sexual intercourse, nor anything justifying the dread with which sexual hypochondriacs regard the having occasionally practiced it. I wish I could say something worse of so nasty a practice; an uncleanliness, a filthiness forbidden by God, an unmanliness despised by men."

There are other complaints of the sexual hypochondriac, into which we have not the space to fully enter. I refer particularly to those odd caprices which these organs sometimes exhibit under varying mental emotion,—even in the most robust and healthy individuals Perhaps the most frequent complaint is that of too speedy ejaculation in the sexual act, which may take place on attempting intercourse with any woman or with some one woman in particular, especially if the attempt be the first one with her. Here the mind is chiefly at fault; over-anxiety to perform the act well is very likely to lead to its being performed badly. It occurs less frequently in married life than in single, and is a defect which diminishes with age as old men well know. If art can do anything to hasten its cure, it will be by means already mentioned: circumcision, if the prepuce be long; the cold sound in cases of irritability of the prostate, ergot and the tincture of iron internally; last but not least matrimony, or, in lieu of that, some other object in life than sexual gratification.

Cases of absolute impotence in men of good health, and who have not greatly abused their powers, must be rare; I can recall but three or four in many years of practice. These I have treated with almost every remedy which I had ever heard of, but I can not say that I ever did any good to the patient. Most frequently the impotence is merely imaginary. It is safe to tell any man who has erections at night that he is not impotent. Matrimony is the remedy for this imaginary evil, but, like the boy who did not want to go into the water before he knew how to swim, the patient desires to be satisfied beforehand of his competency. This he can not do by trial with women of the town; the conditions under which such attempts are made are obviously so different from those of married life as to require no comment.

Finally, the satisfactory accomplishment of the sexual act will be influenced by the merest whim or fancy. One man will be told by a friend some story of his sexual weakness, and, with this in his memory, he too for a time will find himself defective. A coarse word or some personal remark made by a woman may take away all desire for her, while the desire and the power remain the same for others. Excessive desire, especially with gratification long delayed, may also temporarily deprive a man of his power. Roubaud* relates a story of a young Frenchman living in the country, where he was initiated into the pleasures of Venus by a governess, who was a blonde and always wore, when she met him, English boots, corsets and a silk dress. When old enough it became desirable for family reasons that he should be married, but he found himself impotent except under the following conditions:—the woman must be dressed, must be a blonde, must wear English boots, her corsets, and a silk dress, in which case his powers were all that could be desired. Under the pretense of giving him a powerful medicine, Ribaud administered a "placebo," which cured him. This story is here told to show how much a man's powers are influenced by his mental condition, and to enforce the importance of paying attention to the *morale* as well as the *physique* in the treatment of disorders of the genital functions.

---

* Traité de l'Impuissance et de la Stérilité, third edition, 1876, p 371.

NEW YORK CITY.

DIPHTHERIA.*

BY S. S. BOYD, M. D.

The reason why I offer the present paper at this time for publication is, because diphtheria has prevailed so extensively in this country and also in Europe during the last six months; and as I believe that when the attention of doctors is already turned in the direction of that formidable disease is the most profitable time to add our mite of experience.

Early in September, 1878, there appeared in Dublin, Wayne county, Ind., an epidemic of diphtheria. It was at first mild in form, few persons at a time being afflicted. It increased in virulence until about the middle of October, then maintained its most alarming features until the first of December, when it gradually shaded out until the 20th of March, 1879, when the last case was convalescent.

As nearly as I can ascertain from our physicians there were treated in Dublin and vicinity, during the past six months, two hundred and twenty cases of diphtheria, out of an estimated population of sixteen hundred, showing that nearly every seventh person in our community was affected with diphtheria. Of this number about one-third were adults. There were sixteen fatal cases, only one of which was an adult. For truth's sake and the credit of our profession, it must be stated that two of the fatal cases had no treatment from physicians. This leaves but fourteen deaths from diphtheria for which our doctors are accountable.

---

* Read before the Wayne County (Ind.) Medical Society.

Being off duty nearly four weeks from diphtheria in myself, I treated but forty-five of the above number—twenty-three children and twenty-two adults. Of this number but one proved fatal. My thirty-third case, a boy ten years old, died from extension of diphtheritic membrane into the larynx, and perhaps into the trachea. He died on the fifth day from the attack from suffocation.

My thirty-fourth case was that of myself, November 28th. Of this patient, if its merits would justify it, I could speak more feelingly than of any of the whole number treated. Suffice it to state that from diphtheria proper I was confined to my room but six days, and that I did not suffer more than the average of my patients. On the seventh day I made four calls to see patients in town. On the eighth day I was attacked suddenly with intense pain in the spine, seeming to be located between the sacrum and the last lumbar vertebra. This kept me in doors nearly three weeks. Most of this time I was not able to move or be moved without intense pain. One of my patients in the vicinity, a man fifty years of age, was similarly afflicted after recovering from diphtheria.

As to treatment, I can speak authoritatively only of my own forty-five cases. When called to see a patient, if I found that his bowels were moved daily, which was generally the case, I administered no purgative. When I thought the bowels should be evacuated, I ordered sulphate of magnesia or bitartrate of potash in small doses, until mild catharsis was established. Four grains of sulphate of quinia and sixty drops of hydrochlorate of iron were given after each meal. I prepared a large swab, made of a strip of muslin raveled on one edge, and so wrapped around the end of a stick or whalebone that it made a soft brush, but four times as large as we usually find camel's-hair brushes. Dipping this brush in the tincture of muriate of iron, it would absorb half a drachm of the fluid. Then depressing the tongue, I gently pushed the swab back between the tonsils until it touched the back wall of the pharynx. This caused a contraction of the muscles of the fauces, so as to drive the fluid into every part of the pharynx. This simple operation I performed only morning and evening.

In those cases where there was much fetor of breath, the patient was ordered to gargle the throat frequently with whisky and carbolic acid—ten drops of the latter to an ounce of the former. I also advised them to swallow a little of the same each time they used the gargle. In two of the more serious cases I ordered an ounce of whisky with two drops of carbolic acid, three times per day. In my own case, out of respect for my medical friends who visited me, I took four or five fifteen-grain doses of chlorate of potassa.

In the voluminous literature published during the last few months, on the treatment of diphtheria, there has been such a vast number of therapeutic agents recommended that it were enough to make the skeptical doctor doubt the efficacy of any of the whole list. Iron in its various compounds, sulphate of quinia, chlorate of potash, iodide of potash, salicylic acid, benzoate of soda, inhalations of chlorine vapor, alcohol in its diversity of forms. And topically, externally applied, there is an endless variety of poultices, and tinctures, and ointments, always suggested by friends of the patients, which are of little service only as annoyances to both doctors and patients. I wish to make this one exception, however. In one of my patients, I believe her life was saved by the application of cloths wet in ice-water and applied to the throat, being renewed every fifteen minutes during twelve hours. This was in a case where the symptoms indicated that the diphtheritic deposit was extending into the trachea.

Dr. Oertel, who treated last winter seven cases in the grand ducal family of Hesse Darmstadt, says:—"I received more than a dozen letters from England, recommending the use of sulphur. According to my numerous observations, sulphur acts only as a scouring powder." Dr. Oertel depends largely on alcoholic stimulants for the treatment of diphtheria, giving as much as five to seven ounces of cognac repeatedly, with lasting success, as he states. Yet three out of seven cases in the grand ducal family died, including the Princess Alice and her child.

I am aware that in reporting but one fatal termination out of forty-five cases of diphtheria treated, I lay myself liable to severe criticism from my professional brethren; but I can not help it, and I risk the consequences. In this report I have included no cases in which there was not a well-marked deposit of the characteristic diphtheritic membrane. I treated, during our epidemic, many other patients having sore throats and the usual symptoms of diphtheria, except the peculiar membranous deposit. These were only treated constitutionally, without the topical application to the tonsils and pharynx.

To satisfy the thirst for blood among my medical brethren, and to be honest on my part, I will state that one other of my patients which I treated until it was relieved from diphtheria, died about three weeks after I had dismissed it, in the hands of another physician from hydropericarditis and finally hemiplegia. I acknowledge that it is not probable the child would have had either of these diseases, if it had not first been afflicted with diphtheria. What would have been the result if I had treated the patient in its last sickness, I am not able to determine. It is probable, too, that we had in Dublin a mild form of the epidemic; and yet the sixteen fatal terminations ought to satisfy most doctors who desire to maintain the ancient reputation for mortality of this alarming disease.

I know not what time and experience may develop in the treatment of diphtheria. I doubt, however, whether any course of medication now known promises better results than the one (not claimed as original) herein suggested. It is possible that accumulating experience may add alcohol to the list of agents calculated to assist in neutralizing the blood poison in diphtheria.

DUBLIN, IND.

CASES OF DISEASE CAUSED BY IMPURE WATER.

BY W. W. VINNEDGE, M. D.

During the past winter, a striking example of the power of impure water to produce and continue fevers, having typhoid characteristics, came under my observation. On the tenth day of January last, I was called to see professionally the family of Mr. Andrew Earnst, living on the farm of Mr. John W. Heath, two miles east of Lafayette, Ind. Arriving at the house, I found the entire family, consisting of the father and mother and seven children, ranging between the ages of one and eighteen years, sick of malarial fevers, except the father, who had a large dark boil on his right thigh. Three of the younger children had chronic remittent fever, while the four older had typho-malarial or enteric fever. All the members of the family wore pale, expressionless faces, and all except the mother were in poor flesh and strength. Previous to the beginning of the very cold weather, they were under the professional care of Drs. Wood and Smith, homœopaths; and during the entire winter had been dependent, to a good extent at least, on the German Lutheran congregation of this city for nursing and the administration of medicines.

The house is a wooden building, a story and a half high, having four small rooms on the first floor, and two small ones in the attic, and has a dry cellar under the entire building. It is located in a rather level country, on a little rise in the ground, and is higher than the barn, which is at least one hundred yards away from it.

The well is about fifty feet from the house, and the privy about fifty feet from the well, and about one hundred feet from the house; and there is no pig-sty, cess-pool, or other nuisance nearer the well than the privy. To the north of the house are open fields, and to the south timber land; the surface soil on which the house stands is of clay, while on the west, half a mile, the land is low and boggy.

During my first visit, I inquired of Mr. Earnst and his eldest son if the cellar was dry and clean, if the well was protected, and whether it was near the privy; but I was assured by both of them that there was nothing wrong in either of these particulars that they knew of.

As none of these questions elicited reasons for the sickness of a whole family at the same time, I asked Mr. E. to examine his well, and if it was foul to clean it out. In the meantime I prescribed for the family. Two or three days later, a well-digger pumped the water out of the well, which he estimated to be about twenty-five feet deep. At the bottom he found two and a half feet of soft mud, tin-pans, horseshoes, bones, pieces of wood, etc., and Mr. Earnst said "she stunk awful." From this time forward the health of the family, with one exception, commenced to improve; and this exception, a little later, became convalescent too.

I heard no more from the family until the fifth of February, when I was summoned to see George, the oldest son, eighteen years of age, whom I found suffering from single pneumonia; he died twelve hours after experiencing the chill which ushered in the disease. Two days later John, the third son, thirteen years of age, was also seized with single pneumonia, and after an illness of forty-eight hours he too died. It was a singular fact that the disease in both these boys began the same way, and in the same location in the body, namely, in the lower lobes of their right lungs. Their long exposure to fever had so robbed them of flesh and endurance, that they quickly succumbed to so dangerous a disease as pneumonia.

In estimating the importance of impure water as the cause of the ills in Mr. Earnst's family, it must be borne in mind that the eldest son, George, lived away from home until the beginning of his illness—about six weeks before his death. He came home, however, with uncomplicated intermittent fever, which afterward took on typhoid characteristics; and the low type of the fever was most probably explainable, I thought, on the ground that he drank freely of the impure well water.

Mr. Earnst had lived on this place about one year, and during that time, he says, one or more of his family were sick nearly all the time. Mr. Fisher, a previous tenant on this ground, left it about two years ago, I have been informed, on account of the illness of himself and family.

This well was no doubt poisoned by the filth thrown into it from time to time, and by the fact that it had not been cleaned out, so far as I could ascertain, at all. Since the well was cleaned out, the Earnst family has not suffered any more from fevers or boils.

"A well," says Wilson, in his text-book on Sanitary Science, "frequently becomes polluted because it is never out; and for my own part, I regard the periodic cleansing of wells so necessary, that I think every pump-well should be provided with a man-hole, and be cleaned out at stated times. In towns or large villages provided with a large water-supply, the closing of all wells, whether public or private, should be made compulsory; for with drains ramifying in every direction, it may be taken for granted that they are either polluted, or are at all events constantly liable to pollution."

LAFAYETTE, IND.

FOREIGN CORRESPONDENCE—OUR LONDON LETTER.

London, June 15, 1879.

My dear Yandell: Your suggestions to confine my letter so far as possible to practical subjects are to the point, and shall be borne in mind in the future. One must not kick over the traces too often, but an occasional trespass may be condoned by you.

There are few things which fall to the lot of general practitioners which cause more trouble than catheter cases. To pass the instrument is not always easy, even when there is only prostatic disease and no stricture; but that is not what I have anything to say about, for probably that is an operation not likely to be performed by me again. It is certain risks attendant upon catheterism, that deserve attention. Some few years ago Professor Ferrier pointed out how catheters, not chemically clean, could set up mischief in the bladder, just after the death of the late French emperor, when the subject attracted some attention. Lately Sir Henry Thompson has written an article on "the Production of Cystitis by Contagion through the use of Instruments." He thinks disease may be propagated by the direct transference of inflammatory products from the bladder of one patient to another. He does not think, however, that there is anything peculiarly virulent about the urethral discharges to cause this; nor yet peculiar susceptibility in the urethra to become inflamed. Still the operation of sounding the bladder is sometimes followed by inflammation, more or less severe. This may be the result of mechanical disturbance of a delicate membrane, and may be largely avoided by the use of suitable instruments delicately handled. In cases of inflammation mechanically excited, there is first a shiver, three or fours after the examination; then the urine is passed frequently and with pain; then it becomes cloudy, and some general fever sets in. If the patient be healthy, this soon subsides under rest and treatment. In the other cases no disturbance occurs for forty or fifty hours, only a little soreness being felt for an hour or two after the sounding. After this interval there is frequent micturition, loss of appetite, with chills or rigors. Symptoms of cystitis gradually show themselves, and continue a marked course for some days with varying persistence according to circumstances. Why the symptoms should be so long delayed has caused Sir Henry much thought, and the following case he thinks throws much light on the subject: A medical man used to pass a catheter upon himself for weeks without setting up any irritation. One day he used this catheter, which he kept for himself, upon another person, whose urine was muco-purulent and who was suffering from cystitis. It was washed after the ordinary manner. Two days elapsed before he passed it again on himself, and forty-four hours later he began to feel chilly, and the act of micturition was slightly painful. Next day he had fever, and his urine was cloudy. On the third day he was confined to bed, and his temperature rose to 102° and 103° for a few days, during which time his urine was loaded with muco purulent jelly-like deposit. After a week's confinement to bed he gradually recovered. On careful examination of the instrument, a chink was found in which infective material could have lodged.

If inflammation can be so easily excited, how is it, he asks, that it so rarely occurs after catheterism? This is due, he thinks, to the rush of the urine outwards when the catheter is used, while the sound presents no seat for infective material to lodge. Any material adhering to the outer surface of a catheter is usually swept off, together with much of the lubricating agent at the narrow meatus. In order, however, to avoid all risk of contagion, he lays down the following rules: All metal instruments, of whatever kind, to be plunged into boiling water containing a little soda or carbolic acid. Gum elastic and other instruments to be placed in a bath of weak carbolic acid solution. Since the above case occurred he has always added some carbolic acid to the oil used to lubricate the instrument. The form he has recently been using is of acidi carbolici med. gr. xii, ol. olivæ ℥i. This he guarantees is absolutely non-irritating. It should be used freely.

Dr. Robert Barnes opened a discussion at the Obstetrical Society, on "the Use of Forceps and its Alternatives in Lingering Labor," by some valuable remarks. He said freedom from arbitrary dogmas was the condition requisite for the life of science. A retrospect of the history of the forceps showed that more than once the use of this instrument had been defined in the most absolute and inflexible terms. The spirit of independent thought was, however, kept alive by sundry rebels against these formulated rules, so that at the present moment practice differs widely. Side by side we see men using the forceps once in every nine or ten cases; while others use them only about once in one hundred cases, or even seldomer. During their history, their use has so frequently run into abuse that an outcry, followed by a reaction, has followed. Such was the case in the time of William Hunter, Osborne and Denman, when the last insisted that the head should rest on the perineum six hours before the forceps should be used; and that "no case should be esteemed eligible for the forceps unless the ear of the child could be distinctly felt." Such were the rules laid down and widely obeyed, so that too frequently parturient women were allowed to drift into danger, injury and death, without anything being done for them.

The influence of this teaching may have been beneficial in repressing reckless and unskillful operators. The dangers of supine non-interference and of hasty, ill-considered procedures may, perhaps, balance each other; but now neither ought to obtain. The subjects of cases where acceleration of labor is indicated by convulsions, hemorrhage, or other complications on the part of the mother, or of danger to the child from prolapse of the cord, were excluded from the inquiry.

He then gave the rules as laid down by Collins, the younger Ramsbotham, and George Johnston (in 1872), representing three different epochs. Yet when strictly analyzed and compared, he said, it will be found that these rules are all but identical. How men recognizing the same principles could differ so widely in their practice, is a curious study. It constituted, he said, the very kernel of the inquiry. Collins, in the Rotunda Hospital, used the forceps or lever but once in six hundred and seven cases; in the same hospital Johnston used the forceps in every ten or eleven cases.

Then came the question of the "high" or "low" operation. In the latter the head has passed the pelvic obstruction, and only that offered by the vulva remains to be overcome. For the "low" operation he prefers the forceps to ergot, for the following reason:—that there may be minor degrees of disproportion which are not easy of diagnosis, and where ergot may be injurious as well as uncertain. As to obstruction necessitating the "high" operation, he said that frequently the labor was lingering because, though the waters have broken, they had not escaped sufficiently, the head acting like a ball-valve. Here the introduction of one blade of the forceps formed a channel for the ponded-up waters, which often permitted of their escape. Where this was not sufficient for efficient uterine action subsequently, then the second blade could be introduced and the labor terminated readily. The dangers of passing the forceps through an unexpanded os are considerable, even in skillful hands, he holds; the uterus is often dragged bodily downward, and the lower segment of the uterus, and the thin edge of the os uteri, are considerably bruised in consequence. The tendency, too, is to retention of the placenta; and hemorrhage is much increased by such operation. The objections apply with especial force to primiparæ Nevertheless, the resort to the use of the forceps is necessary and unavoidable in many cases, even where a tentative attempt is made, in order to see if delivery can be accomplished thereby, and other and more serious measures avoided. Johnston states that when the "high" operation is necessary, there is no more fissuring of the os uteri than occurs in first labors usually.

In order to expand the os thoroughly, warm water irrigation and hydrostatic bags are very useful. (One of the ablest country doctors I know, has a great belief in the free use of lard as a lubricant in lingering labor, especially in primiparæ; and I have considerable respect for his mental processes.)

Dr. Barnes went on to say that neglect of the forceps entails abuse of craniotomy; after waiting unduly, the life of the child has at last to be sacrificed to save that of the mother. The late Dr. Robert Lee had a very large consultation practice, and performed craniotomy in no less than one hundred and eighty-six cases, while he used the forceps only fifty-three times. He never used the long forceps, and it is impossible to evade the conclusion that many children were sacrificed by the practice. Taking a scientific point of view, Dr. Barnes said that craniotomy should never be the alternative for the forceps. The dominion of this sacrificial operation is totally distinct from that of the conservative operation of the forceps. A more thorough acquaintance with the forceps and its use he thought desirable. Even then its use must be cautiously exercised. "*Ni jamais, ni toujours.*"

He was followed by Dr. George Kidd, of Dublin, who said that very frequently when the os would not dilate and the membranes were unruptured, it was well "to introduce the finger into the os and detach the membranes around the cervix, wait a little time, and when a uterine pain came on make a little gentle pressure with the pulpy part of the finger against the margin of the os; that os would dilate, and the membranes would soon come down and form a wedge-like protrusion through the os, and dilate it sufficiently, and the patient would deliver herself in a short time without instruments." When the membranes had ruptured and the os was undilated, "if the obstetrician passed his finger into the os, and swept it gradually and cautiously round, it would yield very quickly if the patient had been properly treated; if, however, she had been over-stimulated and over-heated, and encouraged to make voluntary exertions, and the head was forced violently down upon it, the patient might become feverish and the parts become inflamed. Still he did not believe this to be a condition in which it was wise to introduce the forceps." A dose of chloral, the warm douche or chloroform, and a few hours' rest, and then the parts became soft and yielding, "and then if necessary the forceps might be employed with safety and advantage."

Dr. Thorburn, of Manchester, said there were two rules for the use of the forceps. The first of these rules was never to use the forceps solely, or at all, to save the practitioner's time; and the other rule was, when the parts were fairly dilated, never to allow an unfortunate woman to undergo a long period of tedious suffering, which could at once be mitigated by a safe operation. He wished Dr. Barnes had spoken a little more firmly and strongly against the practice of using ergot as an alternative when the os uteri was not dilated.

Dr. Stephenson, of Aberdeen, pointed out that the cervix might become very thin and attenuated, then the forceps must be used to prevent rupture of the uterus.

Dr. Malins, of Birmingham, pointed out the conditions under which version was preferable to the use of forceps.

We are all on the outlook for the promised hot weather, which all weather prophets are predicting. Your American weather prophet has gained a great reputation for the accuracy of his predictions as to storms and bad weather; indeed, he is becoming generally known throughout this country, but not always perhaps in a manner that he will appreciate. An old country farmer was heard expressing his opinion the other day, perhaps it may be said more correctly his sentiments, for his notions are evidently a good deal mixed up. He said, "Well, I did not mind the weather being a bit contrary when providence sent it; but since the Americans have taken it in hand it has been beastly, and I'll be hanged if I'll stand it much longer." The association of ideas betwixt the late long-continued villainous weather and this American prophet's predictions is evidently too much for the reasoning powers of the rustic mind, and retaliation by a Conservative government, sent up chiefly by the agricultural element, may fairly be expected, if at once and the same time you send us cheap food and bad weather. So beware and do better.

Reviews.

Chemistry—General, Medical and Pharmaceutical, including the Chemistry of the United States Pharmacopœia: A Manual on the General Principles of the Science, and their Applications in Medicine and Pharmacy. By JOHN ATTFIELD, M. A., and Ph. D. of the University of Tübingen, Member of the Councils of the Institute of Chemistry of Great Britain and Ireland, Etc. Eighth edition, revised by the Author. Philadelphia: Henry C. Lea. 1879.

A book which has been issued in eight large editions in twelve years, four of them especially for the United States, although the author is an Englishman, is thereby set up on a high mountain of worth, such as can be obtained for it by no other method. Such is the book under notice:

"The present edition contains such alterations and additions as seemed necessary for the demonstration of the latest developments of chemical principles and the latest applications of chemistry to pharmacy. This manual is intended as a systematic exponent of the general truths of chemistry, but is written solely for the pupils, assistants and principals engaged in medicine and pharmacy. It will be found equally useful as a reading-book for gentlemen having no opportunities of attending lectures or performing experiments, or, on the other hand, as a text book for college pupils; while its comprehensive index, containing six thousand references, will fit the work for after-consultation in the course of business or professional practice. From other chemical text-books it differs in three particulars—First, in the exclusion of matter relating to compounds, which at present are only of interest to the scientific chemist; secondly, in containing more or less of the chemistry of every substance recognized officially, or in general practice, as a remedial agent; thirdly, in the paragraphs being so cast that the volume may be used as a guide in studying the science experimentally."

This quotation from the author's preface, dated at Bloomsbury Square, London, the first of this year, gives with precision the scope and point of the work and its difference from other leading chemical text-books; and they are such as to invest it with especial interest for medical men, and make this eighth edition of the manual, as the other editions have been, the best work on chemistry for doctors in the language.

J. F. H.

On Diseases of the Abdomen—Comprising those of the Stomach and other parts of the Alimentary Canal, Esophagus, Cæcum, Intestines and Peritoneum. By S. O. HABERSHON, M. D., F. R. C. P., London. With Illustrations. Second American, from the third, enlarged and revised English edition. Philadelphia: Henry C. Lea. 1879.

The original edition of Habershon's observations on diseases of the alimentary canal was issued in London in 1857, and given to the American profession in 1859 by Blanchard and Lea, as a part of the Medical News and Library, circulated then as now in connection with the American Journal of the Medical Sciences. The first edition was esteemed the best publication of the kind in the language, and was a boon to the young practitioner. The present edition, while retaining all the essential features of the first, has been enriched by the fruits of twenty years of experience and observation of its author. And yet the new book is not as important to American practitioners now as was the first to the profession of that day; for in these twenty years a number of valuable works by home authors, on one or another class of these diseases, have appeared, until the whole ground has been fairly covered by monographs, or as parts of general treatises, in a manner as instructive and valuable as that presented by Habershon. Indeed, the therapeutics of American authors in disorders of the alimentary canal seems preferable to that of the English. Still Habershon's is an excellent book, and may be commended to every student and practitioner. J. F. H.

Lectures on Electricity in its Relations to Medicine and Surgery. By A. D. ROCKWELL, A. M , M. D., Electro-Therapeutist to the New York State Woman's Hospital, Etc. New York: William Wood and Co. 1879.

Electricity is so marked a feature in the physical world, does so many beautiful and serviceable things in the cunning hands of science, and in the character of lightning so frequently rends inanimate structures and destroys life, that we instinctively acknowledge its power over human organizations, and are easily led to believe that it may have great therapeutic virtues. We are taught that some of its attributes bear strong resemblance to nerve force, and yet the fullest knowledge of electricity and the closest investigation of physiology gives no insight to the therapeutic value or application of galvanism or faradism. These must be wrought out by clinical observation. Many books (and large ones) are extant detailing the experimental knowledge of this class, but nevertheless accurate information in this direction—such as the general practitioner feels that he can rely on for both safety and good results—has not yet been attained.

This little book of Dr. Rockwell's deals somewhat in elementary affairs, points out some of the difficulties of electrical therapeutics and how to avoid them, admits many uncertainties, but is mainly devoted to unfolding the plan and asserting the excellence of some special methods of his own in the medical and surgical therapeutics of electricity. J. F. H.

Diseases of the Intestines and Peritoneum. By JOHN SYER BRISTOWE, M. D., J. R. WARDELL, M. D., J. W. BEGBIE, M. D., S. O. HABERSHON, M. D., T. B. CURLING, F. R. S., and W. H. RANSOM, M. D. New York: William Wood and Company. 1879.

This volume is one of the series of Wood's Library of Standard Medical Authors, and is composed of nineteen monographs by the six authors named. One is struck with the paucity of literature in the title-page. If it were not for the "F. R. S."

attached to Curling's name, the unsophisticated reader might infer that the whole roster of authors were simple M. D.'s, who lived in the country, were unconnected with any medical society or educational institution, and obligingly wrote for W. W. & Co. to enable them to get out a good book on a series of important diseases. If the reader seeks further light in the preface or introduction, he finds them absent; nor is there even a publisher's note to enlighten as to who the authors are, where they live, what their experience and erudition, or their professional standing. This scarcity of information might lead one to conclude that the contents of the book have been appropriated without leave from somewhere, and the publishers did not care to tell how they became possessed of these fruits of other people's brain labor.

Looking through the book, one finds it well written by experienced men, drawing their information largely from practice in London hospitals and the writings of British authors. The contents are a little musty, most of the cases reported and illustrative facts cited, are from thirty to twenty years old, though in some instances the references come down to a later day. If any one wishes to post up on the subjects contained in the volume, through the early writings of good men, this book will suit him.

J. F. H.

Demonstrations of Anatomy—Being a Guide to the Knowledge of the Human Body by Dissection. By GEORGE VINER ELLIS, Emeritus Professor of Anatomy in University College, London. From the Eighth and Revised English Edition. Illustrated by two hundred and forty-nine Engravings on Wood. Philadelphia: Henry C. Lea. 1879. 716 pages.

This is an old friend in a new dress, after having had the component parts of its body freshly examined, trimmed here, extended there, readjusted and reconstructed after the accumulated knowledge obtained by a competent brain through a skilled hand, patient industry, and persevering observation. Works on anatomy of modern times, and in the English language, number more than threescore—a large family. The family is divided into three principal branches—general descriptive, plates and diagrams, and dissections. Professor Ellis's work is a valued member of the third branch of the family, and so far as good ordinary illustrations can accomplish that end partakes also of the nature of the second branch. As a dissector's guide the earlier editions held a deserved reputation; the eighth is an improvement on all previous editions. Students may rely on its instructions and delineations, and practitioners will find it valuable for reference in regional and surgical anatomy, as well as satisfactory for general instruction in its method of teaching. J. F. H.

A Guide to the Practical Examination of Urine. For the Use of Physicians and Students. By JAMES TYSON, M. D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, etc. Second edition, revised and improved, with illustrations. Philadelphia: Lindsay and Blakiston. 1878. 12 mo., 172 pp.

Since this book has been upon our table, we have had frequent occasion to refer to its pages; and although it is a small book, we have never turned to it in vain. It is certainly more complete upon the subject of which it treats than any other book of like size in the English language. The illustrations are good, and the publishers have issued the book bound in a neat, flexible cloth cover.

Clinic of the Month.

Antipyretic Remedies.—In the Boston Medical and Surgical Journal, June 26th, is the synopsis of a paper on Animal Heat and Fever, by Dr. E P. Hurd, from which we make this extract:

Can anything be done to lessen heat production? Quinia in large doses is, I believe, the only safe antipyretic which even temporarily lessens organic combustions. Salicylic acid is of limited and doubtful utility. Clinical experience has determined that quinia is a veritable antipyretic, and therefore, in a sense, specific in all fevers.

A few years ago we should have shuddered at the suggestion of giving to a child three years of age, laboring under a fever heat of 105° F., five grains of quinia every hour, with the view of bringing down the fever; now we find by experience that such doses produce no immediate bad effects, and that we can obtain a fall of several degrees by a few doses. Much larger doses may be given to adults, generally with gratifying results. Any cinchonism that ensues is of transient duration. The quinia in dose of a couple of grammes is often conjoined with the cold bath, with more marked antipyretic effect.

It is not claimed that the antipyretic cuts short the febrile processes; the most that the advocates of this treatment claim is that by virtue of its anti-fermentative action on the blood or its tonic effect on the tissues, or by virtue of being a *germicide*, quinia restrains excessive waste, promotes assimilation, checks the riotous production of bioplasm, and thus rescues the tissues, and especially the heart, from the destructive effects of high heat. If it acts as an antiseptic or germicide, it is certainly not very successful in its work, as it does not cut short the fever. To do good its use must be persevered in, and it must be given boldly. Whenever the temperature reaches 104° F. the quinia treatment must be commenced, and it must be given in repeated large doses at short intervals till the temperature falls to nearly the normal figure. (Ten grains an hour to an adult will bring down the fever heat after a few doses to nearly the normal.)

The next antipyretic to be mentioned, and probably the first in importance, is cold, applied in the form of cold baths, sponge baths, wrappings of ice cold water, or ice-bags.

Twenty years ago it would have been considered madness to take a child, in the first stage of scarlet fever, manifesting delirium or stupor from febrile calorification and the force of the virus, immerse it in cold water, and keep it there for several minutes, pouring (it may be) cold water on the head of the child till rigor supervened, the thermometer indicating the point at which the child should be removed from the bath. Now this is done with seeming impunity, and is countenanced by good clinicians as legitimate practice. Some of us country physicians think that in desperate cases we have saved life by these means. In ordinary practice cold baths are inconvenient, and our patients are shy of this mode of treatment; cold sponging is much resorted to as a substitute. The patient is stripped of his clothing and laid on a rubber cloth; he is rapidly sponged from head to foot with ice-cold vinegar and water till the temperature falls from 104° or 105° to nearly 100° F.; then he is wrapped in a dry flannel blanket, and returned to his bed. The cold sponging is repeated whenever the thermometer indicates 104° F.

As to the results of the antipyretic treatment, after an experience of nine or ten years, we can not speak very confidently. The immediate effects are generally very salutary, but the fever runs on; repeated baths somewhat exhaust the patient, and our large doses of quinia may do lasting harm.*

---

* "If administered in heroic doses it frequently overdoes the work required of it; it produces a cinchonism which adds to the burdens of the already struggling system, whilst it increases the derangement of the nervous centers and

Certainly hospital statistics do not speak very encouragingly for the antipyretic treatment of fevers.[*] But clinical statistics are notoriously unreliable. It is to such statistics that homœopaths appeal, and we know with how little reason. The antipyretic system seems to be theoretically sound, and we have probably yet to learn how it may be most safely and efficiently managed. We must feel our way along, proving all things and holding fast that which is good; we must persevere, hopeful; follow the best lights; where certainty is impossible be content to remain in doubt; indulge no vain dreams; obey the dictates of common sense.

> "I say, Fear not! Life still
> Leaves human effort scope;
> But since life teems with ill,
> Nurse no extravagant hope.
> Because thou must not dream, thou needst not then despair!"

Neurotic Disturbances Relieved by Glasses.—The above is the title of an interesting article by H. N. Read, M. D., in the May number of the "Proceedings of the Medical Society of the County of Kings," an abstract of which we present:

"Specialists are well aware of the severe and obstinate neuralgia, and disturbed nervous functions generally, caused by errors of refraction and perversion of vision, though the general practitioner has often to grope to a knowledge of these cases through much trouble, assistance being found only, as a rule, in the special treatises on ophthalmology—works usually little consuslted by the profession at large. Asthenopia, ac-

---

intensifies the disturbance of the digestive function." (Dr. Edward Warren in Medical Record, Vol. XI, page 46.) See also Peters in the Medical Record, Vol. XV, page 511. "Professor Lindwurm cautions against its use in large doses in *weak heart*." "Professor Binz shows that large doses may produce death by paralyzing the heart." Niemeyer abandoned large doses. Woods and Bartholow speak of its irritant action on the alimentary canal.

[*] See Medical Record, November 9, 1878, page 366, for statistics which show that in Bellevue Hospital the antipyretic treatment has not been proven to be of certain therapeutic value. According to the Medical Record, Vol. XV, p. 510, the mortality of several of the continental hospitals has greatly increased under this treatment.

cording to Brudenell Carter, is a fruitful source of these functional nervous disorders, and if not recognized the disturbances continue to grow worse and worse, to the despair of both physician and patient, all remedies proving useless." . . . "Until quite recent times the ordinary fate of a hypermetropic child was to be the continual victim of unmerited punishments in the school-room, and to be compelled, in after life, to follow some occupation requiring distant vision only." . . . "We now, by the use of spectacles, place the hypermetrope upon a footing of equality with the rest of mankind, and enable him, in the phrase once addressed to me by a grateful patient, 'to pursue ordinary avocations, and to forget that he has eyes.' A case occurring in my practice, fully exemplifying the foregoing remarks, and entirely and permanently relieved by glasses, forms the basis of this paper, which is entirely clinical in its scope."

The case was that of a young lady eighteen years old, remarkably well developed, and capable of great physical exertion, who, while visiting a sister in Brooklyn, was seized with a violent convulsion about nine o'clock in the evening. Dr. Read was called in, and found her in strong convulsions, frothing at the mouth and teeth clenched, throwing herself about on the bed, striking the back of the head repeatedly, and at intervals uttering a sharp cry, accompanied with the words, "Oh, my head!" She was quieted with chloroform. Next morning she was restless and almost unconscious, and complaining of the dreadful pains in her head. She remained in this state two days and nights, and on the third morning was conscious, but quite weak, with great intolerance of light and dull pain in the head. She was as a young child, very healthy and bright; but when ten years old, after she had been at school nearly a year, began to have violent attacks of headache. When fourteen years old she had her first "fit," being taken after prepairing for a school examination. The catamenia became established this year, being ushered in by a severe convulsive seizure. She did not improve, however, after this, but nearly every month she had from one to three "fits." From this time until she came to Dr. Read, there was no change unless for the worse, in spite of the treatment of many good physicians. The only thing complained of at this time was the neuralgic headaches, and the occasional convulsion. She had given up society entirely, and her family thought her "nervous and hysterical." A uterine examination gave only a negative result.

She was treated for a month by Dr. Read without his being able to make out a diagnosis. When, on inspecting her eyes one day,—as she complained of intolerance of light after an attack—abnormal convexity of the cornea was noticed, and on inquiry she said she was near-sighted. Dr. Read says that, "thinking this trouble might have something to do with her general condition, and desiring also to have an ophthalmoscopic examination with reference to the cerebral circulation, I sent her with a note to Dr. Prout, explaining her condition, and asking him to examine her eyes. I was, however, far from suspecting that the hypermetropia was the sole cause of all her disorders. Dr. P. examined her, made the diagnosis of hypermetropia with hypermetropic astigmatism, and recommended the glasses suitable for her condition, which were procured."

Shortly after this she left for home, and a report came from her a month subsequenly that she had experienced entire and permanent relief from her neuralgic headaches and convulsions; and six months later a communication from her mother stated that from the time of wearing the glasses her daughter "had been like a new creature," having had not the slightest return of any of her old troubles. In Carter's work on ophthalmology, the case of a young student at Oxford is related, who was supposed to have some obscure brain trouble, but after an examination revealed hypermetropic astigmatism, and suitable glasses were applied, a prompt and permanent cure followed.

A second case is given in which an unmarried lady twenty-seven years old, placed herself under Dr. Read's treatment for neuralgia and obscure pains in eyes, back of head and neck, having good health in every other respect. These pains began six or seven years previously. She had tried many physicians and many remedies, and had finally resorted to chloral and morphia for relief. On inquiry, I found she was near-sighted, and recommended her to see an oculist. She went to an optician, and happened to get glasses which suited her, since which time "her eyes and head *felt at rest.*" She has continued wearing the spectacles for two years, and has had perfect relief from her former ailments.

Aconite in Pneumonia.—In the London Practitioner, June, 1879, Dr. William Dobie gives his experience of the treatment of pneumonia in the first stage, with tincture of aconite. The first case treated we give in his own words:

"A. B., aged forty-two, of very good constitution, but dissipated habits, got out of bed one night, and stood for some time with his bare feet on cold flag-stones. A few hours after this he began to shiver, and feel pain in the right infra-mammary region, accompanied by cough and rusty sputa. I saw him the following morning. His breathing was hurried, pulse quickened, and temperature a little over 101° Fahr., and minute moist crepitation was audible over the low part of the right lung. Tincture of aconite (B. P.) was given in two minim doses every half hour for the first two hours, and after that, in minim doses every four hours. The next day his breathing was easier, pulse slower, and temparature 100°. He had slept well all night; indeed, so much so that he said, 'I presume you gave me an opiate.' Aconite reduced to one minim night and morning. On the third day the heat fell to 99°, and from that time he got steadily better; was down stairs in a few days, and at business within a week."

Three other cases are given which were treated in a similar manner. The symptoms in the second case were quick pulse, hurried respiration, temperature 103°, troublesome cough, with rusty sputa, and the physical signs of pneumonia quite distinct. Patient well in three days. In the other two cases a like speedy convalescence resulted.

''The anodyne effects of aconite are very generally known; but I very much doubt if its hypnotic action, which was very noticeable in two of the above cases, has been sufficiently recognized. All the cases, it will be observed, were seen within twenty-four hours, at the outside, from the beginning of the disease; and it is chiefly then that aconite proves of such signal service. Not that it is altogether useless after the first day. On the contrary, I believe that whenever the pulse and temperature run very high and there is no marked prostration, aconite in carefully regulated doses will often be found useful in moderating vascular excitement, relieving pain, and inducing sleep.''

THE INFLUENCE OF MARRIAGE UPON THE RATE OF MORTALITY.—A well known French savant, Dr. Bertillon, has published a long and careful essay upon what he terms ''nuptiality, or the conjunctive attraction of human couples,'' and the result at which he arrives, after a study of the mortality bills of every country in Europe, is that marriage is without exception conducive to length of life, and that Molière was indeed right when he said, ''Il vaut encore mieux être marié que mort.'' Some of the statistics quoted by Dr. Bertillon are so striking that they will be read with interest.

Dr. Bertillon has taken several European countries as examples in support of his theory, and in his first chapter he deals with Holland, where, owing to the existence of a law of divorce, he is able to form what may be called three classes of marriageable people, namely, bachelors and spinsters, married men and women, and divorced persons. Upon the side of the males he finds that for young men between the ages of twenty-two and twenty-four the annual number of marriages is at the rate of 46 per 1000; and that for widowers of that age the rate is 213 per 1000; while between the ages of twenty-five and thirty-five bachelors marry at the rate of 100, and widowers at the rate of 356 per 1000. The number of divorced men who marry again is, between the ages of thirty and thirty-five, 50 per cent. in excess of the rate of bachelors, and the proportion goes on increasing up to the age of forty-five, when it is six times greater than that of bachelor marriages. With regard to females, the statistics quoted by Dr. Bertillon show that in Holland, while the annual number of marriages of spinsters aged from eighteen to twenty-one is 22 per 1000, widows of the same ages remarry at the rate of 44 per 1000. Between the ages of twenty-five and twenty-nine spinsters marry at the rate of 115 per 1000, and widows at the rate of 157 per 1000. On the other hand, there are proportionately fewer marriages of divorced women than of spinsters up to the age of thirty, but after that age the proportion increases, and at forty exceeds that of either spinsters or widows. The figures differ more or less with regard to France, England, Belgium, and Germany; but in all cases they show that the marriage of widowers and widows, and of divorced people in the countries where the law of divorce exists, is proportionately much more frequent than that of bachelors and spinsters.

The most interesting part of Dr. Bertillon's essay, however, is that which is devoted to proving by figures that marriage is conducive to longevity, and is, so to speak, an insurance against disease, crime and suicide. He arrives at the conclusion that "a bachelor of twenty-five is not a better life than a married man of forty-five; that among widowers of from twenty-five to thirty the rate of mortality is as great as among married men of from fifty-five to sixty." In other words, that celibacy ages a young man at least twenty years, and widowhood still more. Taking the French bills of mortality, he shows that while the annual rate of death among married men between twenty and twenty-five years of age is rather under 10 per 1000, bachelors of that age die at the rate of 16 and widows of 19 per 1000. These are the figures for the whole of France, while taking Paris more particularly it appears that the rate for men of those ages is 15.7 per 1000 for married men, 27 per 1000 for bachelors, and 32 per 1000 for widowers. Between the ages of thirty and thirty-five the rate of mortality is 69 per cent. greater among bachelors, and 281 per cent. among widowers, than it is among married men, and the difference goes on increasing the further one advances in life. With regard to women the contrary is the case, for in France the mortality of spinsters between the ages of forty and forty-five is 30 per cent. higher than that of married women, while between the ages of twenty and twenty-five the proportions are almost reversed. This is, no doubt, to be explained by the number of young married women who die in childbed.

A state of widowhood is, according to Dr. Bertillon, even more prejudicial to men than to women, the probability of death being twice or even three times as great as among married men of the same age, while up to twenty-five it is four times as great. So, again, with regard to crime; Dr. Bertillon asserts that for males offenses against the person are 50 per cent. fewer, and offenses against property 45 per cent. fewer, among the married than among the unmarried. The difference is still more remarkable among women, amounting to 250 per cent., and this is attributed to the restraining influence of the husband. Equally striking are the figures which show that crime and suicide, less frequent among married than unmarried persons, are still less frequent among married people with than without families, and the natural inference to be drawn is that the duty of providing for their children makes even the thoughtless better members of society than they otherwise would be. The number of suicides is at the rate of 628 per million for widowers, 273 per million for bachelors, and 246 per million for married men; while the same proportion holds good of widows, spinsters, and married women, though at a somewhat reduced rate for each of the three categories; because, as a commentator of Dr. Bertillon's statistics unkindly remarks, "women have less feeling than men." Dr. Bertillon finds that married people suffer less from disease of every kind than unmarried ones, and he states that pulmonary consumption carries off twice as many widowers as married men of the same age at all periods of life.

It is unnecessary to quote at greater length from these statistics, all which tend to the same conclusion—namely, that marriage is conducive to health, long life and morality. (The Lancet.)

Notes and Queries.

At Atlanta.—The thirtieth annual meeting of the American Medical Association, held at Atlanta on the sixth, seventh, eighth and ninth of May, will not soon be forgotten by those who attended it. The hospitalities of the Atlantians, the beauty of the city with its twice the number of Rome's famous hills—these "Atlantean shoulders" hardly "fit to bear

"The weight of mightiest monarchies,"

but bearing handsome residences, many surrounded by a wealth of shrubbery and a profusion of flowers, and public buildings—the pleasant weather and the season conspired to make a permanent record upon one's memory.

Would that we had the time to refer in detail to the generous and uniform kindness of the citizens, both medical and lay, to the many brilliant receptions made especially attractive, not so much by abundant floral decorations as by the presence of accomplished ladies, both maidens and matrons, and to describe the city itself, and the country about it with its attractive scenery and its numerous objects of natural or of historic interest. It is a marvel that a city of such population, of such wealth and business importance, could have sprung into existence since the war.

But to the Association: Rev. Dr. Gwin, of the Baptist church, opened the first session with prayer. Then followed the graceful and hearty address of welcome by Dr. Joseph P. Logan, Chairman of the Committee of Arrangements. After some routine business, the address of the President was delivered.

The subsequent general meetings of the Association were chiefly occupied with the addresses of the Chairmen of the different Sections, Drs. Rochester, Gunn, Lewis and Knapp, with the discussion of a proposed amendment to the Constitution, practically forbidding the professors in the Medical Department of Michigan University from teaching homœopaths, and with the reading of an elaborate paper by Dr. Chaillé upon State Medical Societies and State Medicine. All the addresses were excellent, as indeed the names of their distinguished authors would guarantee. A few remarks from Dr. Davis, fewer still from Dr. Pratt, and a long, carefully-prepared speech by Dr. Dunster constituted the discussion of the Ann Arbor affair, when, on motion of Dr. Pratt, the subject was postponed for one year.

Dr. Chaillé's paper, originally read before the Section on State Medicine and Public Hygine, and referred by it to the Association, was one of the most important papers ever presented this body. If the recommendations contained in that paper can in the main be carried out, the Association will attain importance and power, power for good, vastly greater than it has ever had. So important do we regard the views so ably and earnestly presented by Dr. C., that we copy from the New York Medical Record the following abstract relating thereto.

The following resolutions, based upon Dr. Chaillé's paper, were offered and adopted:

Resolved, That a committee on the more efficient organization of this Association and of its branches, consisting of *five* members, be appointed by the President.

Resolved, That this committee be instructed to devise and recommend ways and means to secure greater uniformity as well as greater strength of organization of the State Medical Societies, and all their auxiliary branches.

With these ways and means the following be considered:

1. The compilation of a model code of detailed regulations for the government of State and County Medical Societies.

2. The requirement from any State Medical Society of an annual report, to contain certain data (to be specified) necessary to show the condition and progress of each of these State Societies and of their auxiliary branches; to also contain a brief summary of the peculiarities of this organization, and of the measures being used by it to pro-

mote medical organization; and still further, to contain a brief summary of the laws of the State in reference to State Medicine, and of the efforts being made to promote the practice of State Medicine. Such reports should be published in the Transactions of each State Medical Society.

3. The publication, in annual transactions of this Association, of a consolidated report of the above reports from each State, together with special notice of the meritorious work done by any of the branches of this Association.

4. The substitution of a periodical medical journal for the present volume of Transactions.

5. The non-recognition by this Association of State Medical Societies which make no provisions encouraging the organization of auxiliary societies in counties, etc.

6. The advisability of electing no person, either as permanent member or member by invitation, unless such person be a member of a State Medical Society, provided that there be such a society, and recognized by this Association. in his State.

7. The advisability of refusing to admit to this Association delegates of the societies auxiliary to the State Societies, unless the certificates of delegation be indorsed by the authorized officer of the State Society.

8. The advisability of refusing to admit any delegates except those selected from and elected only by voting members who have paid all fees due to their respective County and State Societies, and of establishing the principle that only those members of branch societies who are entitled to vote, and have paid all fees due, shall be entitled to delegates.

9. The advisability of urging every medical college to have not less than one lecture delivered to every graduating class on the importance to the profession and to the people of medical organization.

We hope the profession will give earnest consideration to these important resolutions.

The Association directed the Committee on Publication to give the printing of the Transactions into the hands of the establishment making the most favorable offer, in one of the six largest cities of the United States. We hope the next step will be to have no volume of Transactions published, and the American Association do as the British Association does, publish a weekly medical journal in which all its proceedings, both in the general meeting and in that of each section, shall be issued.

Dr. Sayre was elected President, and he deserves this reward for his long and faithful service in the Association—this honor for the honor he has brought the American profession.

The attendance upon the Association was good, but not as large as anticipated. It was very gratifying to the President that the delegation from Indiana was larger than that from any other state, except Georgia, and to these Indiana friends he desires to give his hearty thanks.

Officers and Committees of the American Medical Association, 1880.

President—Lewis A. Sayre, M D , of New York.

Vice Presidents: First—R. Beverly Cole, M. D., of California. *Second*—E. M. Hunt, M. D., of New Jersey. *Third*—H. O. Marcy, M. D., of Massachusetts. *Fourth*—F. Peyer Porcher, M. D., of South Carolina.

Treasurer—Richard J. Dunglison, M. D., of Pennsylvania.

Librarian—William Lee, M. D., of District of Columbia.

Committee on Library—Johnson Eliot, M. D., District of Columbia.

Next Place of Meeting—New York City.

Time of Meeting—The first Tuesday in June, 1880.

Assistant Secretary—Walter R Gillette, M D., of New York.

Committee of Arrangements—Dr. S. O. Vander Poel, of New York, Chairman; Drs. Stephen Smith, Wm. M. Polk, Robert F. Weir, Charles Inslee Pardee, A. A. Smith, and Thomas T. Sabine, of New York; Dr. Joseph C. Hutchison. of Brooklyn; Dr. M. H. Burton, of Troy, N. Y.; and Dr. E. H. Parker, of Poughkeepsie.

Committee on Prize Essays—Drs. Austin Flint, Sen., A. C. Post, J W. S. Gouley, and M. A. Pallen, of New York City; and J. C. Hutchison, of Brooklyn, N. Y.

Committee on Publication—Drs. Wm. B. Atkinson, T. M. Drysdale, A. Fricke, S. D. Gross, Casper Wistar, R. J. Dunglison, of Pennsylvania; and Dr. William Lee, of District of Columbia.

Practice of Medicine, Materia Medica, and Physiology—Dr. J. S. Lynch, of Maryland, Chairman; and Dr. W. C. Glasgow, of Missouri, Secretary.

Obstetrics and Diseases of Women and Children—Dr. Albert H. Smith, of Pennsylvania, Chairman; and Dr. Robert Battey, of Georgia, Secretary.

Surgery and Anatomy—Dr. W. T. Briggs, of Tennessee, Chairman; and Dr. J. Powell Adams, of Minnesota, Secretary.

Medical Jurisprudence, Chemistry, and Psychology—Dr. James F. Hibberd, of Indiana, Chairman; and Dr. Thomas F. Wood, of North Carolina, Secretary.

THE INDIANA STATE MEDICAL SOCIETY.—This society held its annual meeting at Indianapolis, May 21, 1879. There was a much larger attendance than usual, and the papers presented had been better digested by their several authors than heretofore. The most valuable paper read before the society was that of Dr. Enoch W. King, of Galena, Ind., on "Statistics of Placenta Previa," which statistics have been collected from the doctors of Indiana. Dr. K. tabulates and classifies this collection of cases, and then deducts conclusions as to treatment. Practical papers were those of Dr. G. W. H. Kemper on Affections of the Gall-Bladder tending to result in cutaneous biliary fistula, by Dr. Joseph Eastman on Excision of the Knee-Joint, and others by Drs. G. L. Andrew, J. A. Sutcliffe, J. L. Thompson, E. S. Elder, and W. W. Vinnedge—the last reporting a case of death from chloroform. The president's address by Dr. Ben. Newland, on the Relations of Legislation to Sanitary Protection, was replete with practical thoughts on a subject much neglected by our law-makers. The society ordered that the address be printed not only with the Transactions, but also in the budget presented by the Health Commission, which report will be printed separate from the proceedings of the society. Dr. J. R. Weist, of Richmond, Ind., was elected president for the ensuing year.

FOREIGN BODIES IN THE AIR-PASSAGES.—Dr. J. R. Weist, of Richmond, Ind., is making a collection of cases of foreign bodies in the air-passages, to be presented in a statistical paper on the subject to the American Medical Association. The doctor has sent out five thousand circulars and blank tables to as many physicians in various parts of the country. If any of our readers have had such cases, and have not received Dr. Weist's circular, they will confer a favor on him by sending to his address the particulars of their cases, giving the name, residence, age, sex, kind of foreign body, how long retained, how expelled, kind of operation (if any), time of same and result, whose patient, name of operator, and any other facts of interest.

MEDICAL LEGISLATION.—The Indiana medical protection law, enacted in April, 1879, provides that all legally chartered medical colleges in the state shall have appointed from the State Medical Association of the same school of practice to which such college belongs, a board of examiners, who shall examine all candidates for graduation, and shall recommend or not the bestowal of diplomas. This law does not affect graduates who have been five years in practice before the passage of the act, or those not graduates who have been ten years in practice. Every other candidate for practice in the state shall present his diploma to the clerk of the court before he can obtain license to practice. The penalty for violation of the law is imprisonment in jail for not less than six months, and fined not less than $25. The act is in force from its passage: this is a good law. (Virginia Medical Monthly, April.)

This law, which our *confrère* of the Virginia Medical Monthly pronounces a good one, was vetoed, and failed to pass over the veto. The failure of needed medical legislation in Indiana furnishes a sad evidence of divided professional counsels. Not a bill was proposed, and there were several, but some doctors opposed, either directly or indirectly. It is to be hoped that when the next legislature meets, there will be such harmony of opinion and concert of action on the part of Indiana doctors, there will be no repetition of this failure.

LE MÉDECIN MALGRÉ LUI.—Those who were at the Gaiety Theater on the 6th instant enjoyed a hearty laugh at the imperishable three-act farce of Molière, in which he exercises his powers of satire (as he not infrequently did) upon the professors of the healing art. As this little play is performed by the Comédie Française, it appears to us to be the very perfection of harmless fun, and we regret that only one representation of it will be given during the visit of the French actors to London. Got as Sganarelle, the mock doctor, entered into and seemed to enjoy his part; and it is, indeed, a matter of doubt whether the appearance which he presented, in a black gown and ruff and a high steeple hat, or the pathology which is put into his mouth, were either of them very great exaggerations of things as they really were in the time of Molière. The patient that Sganarelle is called upon to cure is a fanciful young lady who has become dumb, and the following is the explanation of her condition which he offers to the awe-stricken and wondering relatives:—"These vapors of which I speak, passing from the *left side* where is the liver to the *right side* where is the heart, it happens that the lungs (which we call in Latin *armyan*), having communication with the brain (which we call in Greek *nasmus*) by means of the vena cava (which we call in Hebrew *cubile*), encounter the said vapors which fill the ventricles of the omoplates, and because the said vapors . . have a certain malignity which is caused . . by the acridity of the humors which are engendered in the concavity of the diaphragm, it happens that these vapors ossabundis, nequeis, nequer, polarinum quipsa melus. Now you see why it is that your daughter is dumb." Molière must often have laughed at the utterance of pathological doctrines quite as wild and as mystifying as the above. (Lancet.)

Dinner to Medical Editors.—Among the pleasantest of Atlanta memories is that of the dinner given by the editors of the Southern Medical Record at the residence of Dr. T. S. Powell, to the Association of American Medical Editors. Dr. Powell and his esteemed associates evidently had spared neither trouble nor expense to make the occasion very delightful to the guests; and if these guests did not heartily enjoy themselves, then their acts and words sadly belied them.

Errata.—In the address published as a supplement to this number, readers will please correct the following errors:—On page nine, for "Pain in a discipline," read "Pain is a discipline." On page twenty-eight, the fourth word in the first line should be "consensio" instead of "censensio." On page thirty-one, note fifty-two, in the first line of the extract from Sydenham, "left" is used for "lest." Finally, the last page is numbered "24," when it should be "34."

TO CONTRIBUTORS.—Be patient as to the publication of your communications. Sometimes the accumulation of material compels a delay of two or three months in the publication of even very acceptable papers. Meantime the editors, expressing their thanks for these contributions, beg you not to weary in well-doing, but give us short, practical papers. Few men are capable of, or have the time for, writing long, readable and instructive articles, and very few readers care for long articles. Write briefly, plainly, what your own eyes have seen and your own ears heard; let your drafts upon the works of other men, if you make any at all, be very few and brief, and your contributions will be read and remembered and quoted, finding their way into a dozen other journals, securing you usefulness if not fame.

THE LOUISVILLE MEDICAL HERALD.—Now comes a new candidate for professional support, the Herald, springing into the arena fully armed, bold, outspoken, and with that in its whole port and bearing giving promise of power and permanence. It evidently has come into the ranks of medical journalism determined to stay, and we hope its determination will be made good.

DR. E. W. JENKS.—Dr. Jenks, of Detroit, succeeds Dr. Byford in the Chicago Medical College. A better appointment could not have been made. Dr. J. is learned in his profession, an excellent physician and a skillful operator.

WHAT IS TENTING?—Another word added to the language, or rather a new use for an old word! One of our obstetricians writes for a foreign medical journal a paper upon "Tenting," meaning the application of tents in gynecologic practice. That, of course, is all right; but let the reader turn from his gynecology for a dive into "Dante," and he will find there is a tenting of another sort, more in correspondence, too, with the etymology of the word, as the following passage shows:

> "It is no marvel if thy fingers fail'd
> Do leave the knot untied; so hard 'tis grown
> For want of tenting."

THE AMERICAN PRACTITIONER.

AUGUST, 1879.

> Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

THE ELEMENTS OF SURGERY.

BY JOHN CHIENE, M. D., F. R. C. S. E.

Surgeon to the Edinburgh Royal Infirmary, etc., etc.

LECTURE III.—INFLAMMATION.

INFLAMMATION—Causes: Exciting and Predisposing—Symptoms: Local—Constitutional—"The Feverish State:" Three Varieties in Surgical Practice—Pain Fever—Waste Product Fever—Putrefactive Product Fever—Principles of Treatment—Rest—Prevention of Putrefaction—Removal of Foreign Bodies—Application of Cold—Counter-Irritation—Theory of Counter-Irritation—Importance of Sick-Room Cookery.

Inflammation.—I have in the preceding lecture spoken of wounds and their repair, and I shall now proceed to the consideration of inflammation. It may possibly have struck some of you—especially those who have already attended a course of lectures on surgery—with surprise that I have hitherto not mentioned the word, and the more so that I may frequently have appeared to tread close upon the consideration of the thing. I certainly have intentionally refrained from using the word, and I certainly have spoken frequently of the thing as it is commonly understood; but it is because I know that there are certain associations connected with the word that would interfere with a clear apprehension of the thing. The word inflammation seems to imply something evil which it is as necessary to avoid as scarlet fever; but when I spoke of the phenomena to be observed on the application of an irritant, you were prepared to give your whole attention to the process undisturbed by any association. Having done so you will not be led astray when you are told that the phenomena to be observed on the application of an irritant, as they have already been described to you, are the phenomena of the early stages of inflammation. My first care was to point out to you how clearly these phenomena were associated with the process of healing—how necessary they were to it: and I should be inclined to confine the term inflammation to the phenomena when in excess, and when they appear as the symptoms—heat, pain, redness, swelling.

It is by no means an easy thing to restrict the meaning of any term which is in common use in a wider acceptation. Perhaps it is often undesirable to make the attempt. With regard, however, to the term inflammation, the word unfortunately is apt to be misunderstood by any one beginning the study of medicine. He has heard it always used to mean something evil—this is the meaning attached to it in common life. The surgeon, however, knows that without it no wound would ever heal, and he welcomes it in its early stages. He desires, however, that it should be kept within bounds; he knows that if it goes too far, instead of being the means by which a wound heals it prevents that healing. No wonder that the junior student is bewildered. An attempt has been made in these lectures to avoid a misunderstanding by speaking of the process of repair before entering on inflammation. I now proceed to speak of the causes, symptoms, and treatment of inflammation.

Causes.—The causes which give rise to inflammation are divided into exciting and predisposing. The division is not a scientific one, but it is useful. An example will bring out what is meant by it. Two men receive the same injury, and are placed under the same treatment: the one recovers, and the other dies. The circumstances of the two men from the time of receiving the injury were the same, and the difference in the result must lie in the state of the two men before the injury. The predisposing causes led to the difference in the effect. Thus the whole effect and the ultimate result will be determined by the nature and extent of the injury which is the product of the exciting cause, and by the circumstances and constitution of the patient, at the time he received the injury—the predisposing cause.

Exciting Causes.—(*a*) Mechanical injury. This requires no explanation. (*b*) Chemical. An acid which acts on the tissues, such as nitric or sulphuric acid, may serve as an example. (*c*) Heat or cold. Burns and scalds are the effect of the first; frost-bites and chilblains of the second. (*d*) Putrefaction. This is one of the most fertile causes, and with it is closely associated the question of antiseptic surgery. (*e*) Foreign bodies. You must be prepared to give a wide interpretation to this phrase. Pus which collects in the tissues is a foreign body as much as a leaden bullet. Indeed, it is often not so much what the foreign body is in itself as what it carries with it—the germs of putrefaction—that constitutes the exciting cause.

The *predisposing causes* are,—(1) Constitutional peculiarities. Such are, (*a*) hereditary tendencies, *e. g.*, to gout or scrofula; (*b*) bad habits, such as intemperance; (*c*) starvation; (*d*) proneness to excited action or over-sensitiveness: one man will keep on a mustard poultice for half an hour, while another can not bear it for more than five minutes; (*e*) altered or weakened nerve power, as when bed-sores form in cases of paralysis; (*f*) certain states of the blood, as when carbuncles form. Notice that this last is a refuge for our ignorance, and may mean almost anything. (2) Previous attacks. When you once have had a part attacked, there will always be weakness there. When once an inroad has been made by such diseases as gout and rheumatism, it is very easy for them to return.

Symptoms.—The symptoms I am about to speak of you will not find so well marked in all cases as I shall describe to you.

I am speaking of typical cases, and from the standard thus set up there are numberless variations. One patient has one symptom well marked, another has another; in one part of the body you will find inflammation characterized by the development of one symptom, and in another part another symptom attracts your attention. The cause of the inflammation, the constitution of our patients, and the seat of the disease, are the factors which determine the relative development of the symptoms in any one case.

The symptoms of the typical inflammation are either (first) local, or (second) constitutional. Each class deserves careful consideration, as about each there is yet a great deal of which we know nothing.

Local.—These are generally summed up in the old formula—redness, heat, swelling, pain. Some of these terms do not precisely describe the actual phenomena, and I prefer to present them in a modified form.

(*a*) *Alteration in color.*—The color toward which an inflamed part tends is red. Be the shade of color what it may, the alteration is always owing to the greater quantity of blood in the tissue. It is congested; and the amount of congestion will depend on the vascularity of the part, the strength of the patient, and the acuteness of the inflammation. On these conditions, therefore, will depend also variations in the intensity of the color: when there is biliary derangement, the color of the inflamed part tends towards yellow.

(*b*) *Swelling.*—This will be more prominent in those tissues in which there is the greater room for it. For example, in the conjunctiva the swelling is great, and so also in the testicle; but in such hard dense structures as bone, cartilage, the cornea and fibrous tissue, there is very little swelling. The special cause of this inflammatory swelling has been alluded to already more than once. In an irritated part there is effusion of the liquor sanguinis, together with migration of the white corpuscles of the blood; and this infiltration in the tissues, together with the subsequent proliferation of the cellular elements, causes the swelling.

(*c*) *Heat.*—You must understand by this not the mere feeling of increased heat in the part, but the actual fact that there is greater heat developed in it. We owe the demonstration of this to Simon and Montgomerie. It was ascertained by them that the temperature in the blood of an artery going to an inflamed part was less than that in a vein leading away from the part, and that the temperature in the latter was less than that in the seat of inflammation itself. The following illustration will show you the meaning of this. The air in this room while that fire is burning takes a course towards the fire-place and up the chimney, and you would find the temperature of the room, the chimney and the fire itself, roughly speaking, in the same relation as those of the artery, the vein, and the inflamed part. The explanation of the relation in this latter instance is the same as the explanation in the former. The inflamed part is the seat of the production of heat. In the changes that are going on there—changes tending to degeneration—there is continual oxidation to a much greater extent than is usual in the normal tissue, whence the increased heat.

(*d*) *Altered sensibility.*—The word "pain" does not express all that is meant by this. When you have inflammation of the ear, you have tingling; and when the eye is inflamed, flashes of light pass across it without an outward cause. But the organs of special sense being put out of question, pain is the general form of manifestation of this symptom. It is of various kinds, which can not be described otherwise than by the graphic epithets which are used by those who have felt them — starting, throbbing, aching, burning, gnawing, etc. Very frequently the intensity of the pain varies with the denseness of the structure affected. The pain in acutely inflamed bone or tendon is excessively severe, while in cases of inflammation of the loose cellular tissue it is comparatively mild. This altered sensibility in all its modes is due, no doubt, to the pressure upon the sensory nerves. The pressure on the sensory nerves will be most acute in the dense tissues, where the effusion is so strictly confined; while in the looser tissues, where the added constituents have room to expand, the pressure is not felt so acutely. While the sensory nerves are affected in this manner, it can not but be that the vasomotor nerves are also influenced, and the peculiarities in the vascularization of an inflamed part will be partly due to this latter cause.

One form of pain I must not omit to mention here. When there is disease of the hip joint, there is pain experienced in the knee. When there is inflammation of the bladder, there is pain at the point of the penis. These are examples of what is called sympathetic pain, and are due, no doubt, to a peculiar arrangement of the nervous mechanism. Fuller discussion of the subject I must defer till a later period, when I speak of counter-irritation.

(*e*) *Modification in function.*—This is a result of the interference with the nutrition of the part. An inflamed muscle can not contract; an inflamed bladder can not hold water; an inflamed eye can not see, and so on through all the organs of the body.

Constitutional symptoms.—It is especially about this class of symptoms that our ignorance is most manifest to ourselves. But if any of you desire to attempt to let in a little light upon the obscurity that reigns here, I will say in passing that I know of no other way by which best to approach this study than a sound knowledge of physiology. I have had occasion to magnify this study to you before, but in the consideration of these constitutional symptoms of inflammation especially, you will not advance a single step in explanation unless fortified by a careful discipline in physiology.

The constitutional symptoms are summed up generally in the expression, *the feverish state.* There are great variations in the character and intensity of this state, but we may with confidence refer them to the interactions of the three conditions mentioned a little ago—the cause of the inflammation, the constitution of the patient, and the seat of the inflammation. We have a specific poison, and we have the constitution on which the poison acts; and a fever, like every other product of nature, will undergo modifications both from the seed whence it sprung and from the soil where it was reared.

The feverish state is the collective name for a number of familiar symptoms. I shall take these *seriatim.*

First, there is a rise in temperature, accompanied by a rigor and increased thirst, with want of appetite. Secondly, the secretions are scanty, *i. e.*, the skin does not act, but becomes hot and dry, and the normal amount of perspiration is absent; the bowels are constipated on account of the lessened secretions from the lubricating glands; the urine is small in quantity and high-colored, from defective action of the kidneys; the tongue becomes furred and unclean, because the secretion of the salivary glands is affected. All these are manifestations of the second symptom. Thirdly, respiration and the heart's action are increased. The latter of these phenomena is, as we shall see, the result of the former. Fourthly, certain nervous complications take place. Languor and severe headache set in, and are followed by a confusion of ideas rising maybe to a state of delirium.

This condition may end in death as a result of exhaustion, or the patient may be lifted up again and recovery take place. The recovery is preceded by a critical evacuation. The secretory organs begin to act vigorously. A profuse perspiration breaks out; the bowels are freely moved; even unwonted passages may be found for the renewed life of the body, and there may be bleeding from the nose.

Causes of the constitutional symptoms.—To assist in seeking for a proximate cause of all these phenomena, we have a few established facts in physiology and pathology. There is a process of increased oxidation going on in the inflamed part, and associated with this an increased production of heat and an increased production of effete matters; there is an accumulation of these waste products in the blood and deterioration thereby, and this is furthered by the defective action of the secreting organs described above; and, lastly, there is nature's attempt to throw off the mischief. Let us see how far these conditions will lead us to explain the proximate causes of the symptoms mentioned above.

(1) *Rigor and rise of temperature.*—We have all suffered from this, and know well what it is. When you have a rigor, there is contraction of the vessels at the periphery of the body, and dilatation of the vessels in the internal viscera. This affects the mechanism which regulates the addition and withdrawal of heat in the body. The liver is the great heat producer, assisted to some small extent by the muscles; the skin is the great heat withdrawer—of every one hundred degrees of heat withdrawn seventy-seven degrees being by way of the skin. In the above circumstances, then, there is contraction in the seat of common sensation, whence the feeling of cold and shivering; but there is dilatation and increased activity in the heat-producing area, whence the rise in temperature. You may compare the body to a room. You may increase the temperature of the room in one of two ways, either by a larger fire or by preventing the heat that is formed from getting exit. Both of these causes may be at work at the same time. Increase the size of the fire, close the windows. The liver is the fire, in it you have increased vascular activity; the skin is the closed windows, in it you have vascular contraction. But why there should be contraction peripherally and dilatation in the viscera, we do not know. We can understand why one should feel cold after dinner, because we are aware of a definite cause for visceral activity; but we are aware of none in a case of blood poisoning.

(2) *Scantiness of the secretions.*—The blood is heated and deteriorated, and the skin, kidneys, etc., do not receive a proper supply of good blood, and their normal function is impaired. The passage of heat also is affected by this diminution in the excreta. After a time there will be a poisoning of the nervous centers, and the nervous action on the secretory organs will still further complicate the process.

(3) *Increase of respiration and heart's action.*—This is simply nature's attempt to throw off the mischief. The lungs in health throw off about twenty per cent. of the heat that is withdrawn from the body: they now attempt to do more, and to take the place of the skin. The respiratory and cardiac

ganglia work longer than the other and are able for their work when the others have failed, and therefore they try to do the work of the others also.

(4) *Certain nervous complications.*—This simply means an advance of the blood in its deteriorated state to the nervous centers and a poisoning of them.

Such, so far as we can ascertain, is a probable explanation of *how* these symptoms come about; it remains that we consider the "*why*" of the state as a whole. What is the cause of the feverish state?

Causes of the feverish state.—There are three causes present of which we know something. It can not be said that these three causes are present in all instances. Indeed, we actually count three distinct types of fever, each marked by the predominance of one of these causes, and the comparative inactivity of the other two. These are the *pain fever*, the *waste product fever*, and the *putrefactive product fever.* Though they are essentially quite distinct, yet in the majority of cases they are more or less coëxistent.

(*a*) *Pain fever.*—You may call this, if you like, tension fever, as it is tension which is the objective fact when pain is produced. It is of very common occurrence, quite apart from the rest. Suppose that one of you suffer from whitlow—an inflammation of the flexor tendon on the front of the finger. When the pain grows intense, you are seized with a rigor, and a rise in temperature occurs, which continues until the surgeon cuts down upon the seat of inflammation, and affords local relief. The seat of inflammation is under the fascial sheath, and as you know there is very little space under this unyielding material to give the effusion room to spread. Great pressure is thus caused upon the sensory nerves. This stimulation is communicated to the center in the medulla oblongata, from which impulses sent along the vaso-motor nerves induce the rigor and consequent rise in temperature.

(*b*) *Waste product fever* (*wound fever or traumatic fever*).—In this kind of fever you have a distinct poison passing into the blood; the manufacture takes place at the seat of the local injury. There is increased oxidation, and the effete products of this process being abnormal, have no immediate normal outlet. They remain in the blood and tissues, and are conveyed to other parts of the body chiefly by means of the lymphatics. The constitutional disturbance is met with from the second to the eighth day after receiving the wound. During this time the surface of the wound is an absorbing surface, and the mouths of the lymphatics are open. After this period generally granulation commences, and with the commencement of this the wound ceases to be an absorbing surface; the mouths of the lymphatics are closed, and the surface begins to cast off.

This poison is not a strong one, and that the effects may be appreciable a large dose is required, and therefore a large surface of wound. The effect lasts no longer than the period of production of the effete matter. This condition disappears with the appearance of granulation; absorption only takes place when the wound is recent, when the lymphatics and blood-vessels are open; when they are closed, then the wound fever ceases. Such is the waste product or traumatic fever.

(*c*) *Putrefactive product fever.*—This is by far the most important, because it is the most dangerous, kind of fever which the surgeon has to deal with. It may occur at any time until the wound is healed. Unlike the traumatic fever it does not require a large dose of the poison, nor on that account a large absorbing surface. It is a powerful poison. Besides the amount of the dose, the constitution of the patient is an important factor in the process. The poison enters either by the lymphatics or by the blood vessels. Two types of putrefactive poisoning are met with. The first is septicemia; in this the course of the fever is very rapid. In the second (pyemia) it is slow, and a patient may linger on for weeks under an attack of this variety. In one who has been strong and healthy up to the time of receiving a wound, and who is inoculated with the putrefactive product, the fever is apt to take the acute form, while a weakly patient wastes away with a fever of the low or chronic type. In all probability the septicemic variety enters by the lymphatics; the pyemic variety enters by the blood vessels. Septicemia occurs soon after the infliction of the wound; pyemia at a later period.

The treatment of pyemia or septicemia is, I am sorry to say, unsatisfactory; it is a most dangerous disease, and the majority of those who have died of the effects of operations have been killed from this cause. But if the treatment is a subject for despondency, on the other hand the prophylaxis of the disease may be so conducted as to give the very best results; and this will form a topic for fuller consideration at a subsequent stage in these lectures. I have never known a patient suffer from pyemia or septicemia in whom the wound was antiseptic.

Principles of treatment.—In treating inflammation, as surgeons, remember that you have the advantage of knowing that at a certain time, viz., after a wound has been received, and in a certain place of the body, viz., the part which has been wounded, inflammation may with some probability be looked for. Preventive measures, then, ought always to have a large share of the surgeon's attention in the treatment of inflammation. And as in most cases the inflammation is kept up by the continuing presence of the original irritant, the principles of curative treatment will be much the same as those of preventive treatment. In the following observations you will understand what I say to apply in great part to the one as well as to the other.

Rest.—The first great principle which we must learn to apply is that of rest. Your study of physiology must be brought into play to teach you what is rest and what is unrest for any particular organ; for to rest an organ simply means to prevent it from performing its function either by rendering the performance unnecessary altogether, or by calling into action other agencies which may take the place of the one in question. Rest may be divided into general rest and local rest.

One of the great difficulties you will meet with in practice is in dealing with patients of an over-sensitive disposition.

Your first aim must be to reduce these people to such a condition of rest as will give the affection they are suffering from a fair chance of recovery; and, for this purpose, no medicine is so valuable as opium. The caution which you most need in the administration of this drug is that you must beware of giving too small doses. Small doses stimulate, and it requires a large dose to obtain the sedative action.

The means you employ to secure local rest may be either mechanical or physiological. When you apply a splint to a fractured limb, in order to overcome and prevent the action of the muscles, the means are mechanical; when you exhibit purgatives and diaphoretics, in order to relieve the kidneys of their work, the means are physiological; when you pack the penis and testicles in cotton-wood, and at the same time administer bromide of potassium or camphor, the means are both mechanical and physiological. There is no definite line of demarcation between these two methods. The body is a living organism, and the performance of every one of its functions is a physiological process; but at a number of points we can observe the application of mechanical principles, as in the motion of a bone pulled upon by a muscle, and consequently when we wish to interfere with an action of the latter kind, we can to a certain extent adopt mechanical means.

In many cases where the performance of the function is not an essential part of the vital process, and where it is under the control of the will, you will be assisted by nature in your efforts. In an inflamed joint there is acute pain felt in the act of moving, and on that account the patient will voluntarily exercise all his care to keep it at rest. Pain is often an excellent splint. But when the control of the will over the muscles is diminished, as in sleep, this aid is gone; hence the intense pain felt in an inflamed joint when the patient is dropping off to sleep. Of course sleep must be secured at all risks, and the bandages, weights and splints we apply have reference in such cases mainly to the state of the patient when asleep.

The amount of energy in the body is definitely limited, and sometimes in order to relieve one organ from tension and work, it is sufficient to put an extra amount of pressure on another. The typical example of this is in cases of overworked brain. The remedy is active bodily exercise. When engaged in playing football, as you know, it is actually impossible for you to think in a sustained and consecutive fashion. Your brain, therefore, "gets a rest," when your limbs are active, or when your bodily senses are occupied as your eyes are with a change of scene, your thinking brain gets a rest.

The second principle I would recommend for your attention is the *prevention and cure of putrefaction;* entering into this subject involves the detailed study of antiseptic surgery, which I will defer until I come to suppuration.

Thirdly, we must take steps for the *removal of foreign bodies*, which do harm by causing unrest. These I would divide into two classes. There are the true foreign bodies, those which enter from without. Such are pieces of cloth, bullets, splinters of wood, etc. These chiefly derive their power of doing mischief, and therefore their importance, from the circumstance that they generally carry along with them the seeds of putrefaction. An aseptic bullet may get into a man's body, and lie there for years without doing any harm. But besides these true foreign bodies, there are others which it would not strike you to call foreign bodies. Pus is a foreign body; the effusions in hydrocele or synovitis are foreign bodies. They have no business where they are, and they are performing no function. They are merely pressing on the neighboring tissues and acting as irritants. These foreign bodies are produced from the tissues in which they lie; but that is not the principal fact to be noted regarding them. *They are constantly being added to;* and their action as mechanical irritants is therefore ever growing more severe.

These obstacles to recovery and excitants of inflammation must be removed; and the removal of the third class I have mentioned requires particular methods. Take a case of synovitis where the knee-joint is affected. The treatment often is to take a fine trocar, and opening with this into the joint let out the contained fluid. It may probably be necessary to do this more than once. The remedy is intermittent in its action, in its power for good. If it is necessary to give the joint continuous rest for some time, then a drain is inserted to draw off the fluid continually. This is an example of the curative action of a drain. You have an example of its preventive action when it is inserted into an operation-wound before sewing it up. Do not suppose that it is always necessary to drain a wound externally. There are great surfaces of the body which in a healthy condition are absorbing surfaces, and it is sometimes possible to take advantage of their existence to drain our wound. For example, a wound near the knee-joint may be drained into the knee-joint and completely stitched up. The wound in ovariotomy often requires no external drain, if the peritoneum is healthy. Might not the wound made in an operation for hernia be drained into the peritoneal cavity? In a case of femoral hernia in the female, it is very difficult to keep the wound aseptic, since it is so near the external opening of the urethra. If, then, we could drain our wound into the peritoneal cavity, we might have healing of the external opening in forty-eight hours by the first intention.

Fourthly, *the application of cold* will sometimes be found of use. When inflammation has reached a marked degree, cold may injure, and generally it must only be used at the very outset. Again, it is only useful in superficial inflammation, except in the case of inflammation within the cranial cavity, where it is used with excellent effect. The amount of cold necessary may be set up either directly as by ice, or indirectly by evaporants.

Counter-irritation.—We know fairly well the modes of action of the foregoing therapeutical agents; but I have to deal now with one very important principle of treatment of which we know very little. I shall present to you one or two facts which may serve to reveal the meaning of *counter-irritation.* Inflammation of the lungs is relieved by the application of a blister to the chest. An inflammation in the knee-joint is treated by a blister to the skin, and a case of ulcerated cartilage may also be treated by inducing an ulcer in the superficial tissues.

To speak shortly of the explanation of these facts, we may lay it down as a safe generalization that two inflammations of a different organ or tissue can not exist comfortably in the body at the same time. To take an example: A person is suffering from mumps—an inflammation of the parotid gland. Suppose the person a male. One morning when he wakens he finds the inflammation in the gland gone, but his testicle is swollen. Suppose the person is a female. In her case the inflammation disappears coincidently with the appearance of ovarian irritation. An individual is suffering from erysipelas, and while there is great inflammation of the scalp and face, the contents of the cranium are evidently untouched, and the patient's mental condition is quite sound. In a day or two you find that the erysipelas has abated, but that there is a depressed nervous condition and confusion of ideas—the brain is evidently affected. All such occurrences are referred to under the name metastasis. Hunter treats of much the same thing, but calls it sympathy.

Now surgeons take advantage of this law of metastasis when they apply a counter-irritant. Recollect what I told you of the action of an indirect irritant. It acts through the nervous system; and this hint gives us our first position when we try to frame a theory of counter-irritation.

(1) The mechanism connecting the two parts concerned must be a nervous one, and you will remember what I said about such a case as pneumonia, where the intervention of the pleural cavity between the parts affected forbid the supposition that anything else than an indirect connection through the nervous system is the basis on which the inflammation is caused at the first, and I now add is cured afterwards.

(2) This connection is through the cerebro-spinal system.

(3) What is termed a vaso-motor mechanism, which establishes the connection between the sensory and vaso-motor nerves, is the special bond of union.

(4) There is an intimate connection through this system between the superficial and the deep parts of the body; pain in the shoulder, a consequence of disease of the liver; pain under the mamma in ovarian irritation; supra-orbital neuralgia from a carious tooth.

(5) The amount of nerve force in the body and the amount of blood-supply in the body, at any given time, are fixed quantities. In other words, if an extra amount of nerve-force or of blood-supply is expended at one part of the body, it must be taken from some other part.

(6) When you have inflammation in any part, there is an alteration in the nerve-force and in the blood supply expended at that part. This alteration consists in addition at the inflamed part, and as a consequence of this there must be subtraction from some other part.

I have now to bring these facts to bear upon the explanation of the action of a counter-irritant.

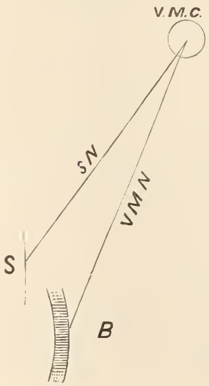
The explanation of counter-irritation which I have to offer is not held by me as proved. It is a scientific hypothesis put forward as a probable account of what takes place, and at any rate as furnishing ground to go upon in further research. These theories, which are put forward in the progress of science, have this value independent of their positive truth, that they point out what experiments should next be made for the verification or refutation of them; nor does the refutation of them prove them valueless, for it may turn out to be a most important step in the approach to the real truth. It will be your special work, gentlemen, to test the theories of those who have preceded you; and no more suitable legacy can you leave to those who will follow you than a carefully thought-out and clearly-stated hypothesis.

The germ of the following speculation is to be found in a paper by Mr. Hart in the London Practitioner, November, 1878, on "Sympathetic Pain." It is applicable to those cases in which we have no direct vascular communication between the part inflamed and that part to which the counter-irritant is applied. As I hinted before, counter-irritation may be looked upon as a mode of bleeding. Now, in such a case as that of the kidney, where we have direct vascular communication between the affected part and the part to which the irritant is applied, the bleeding is direct, so to speak. By producing hyperemia in the skin and parts immediately beneath, we withdraw blood from the kidney. But in such a case as the pneumonia, where no direct vascular connection exists with the breast, the bleeding is produced by the intervention of the nervous system, and making use of the fact that hyperemia of the nervous center is associated with hyperemia of the inflamed part. So may be explained the connection between the mamma and the ovary, which we know, from their forming two of the organs of reproduction, must be closely associated in the nervous mechanism. So also may be explained why gonorrhea may be cured by giving rise to orchitis. You will understand what the surgeon does if I take this latter instance, and say that we may cure gonorrhea therefore by giving rise to orchitis.

Take one or two more examples. Not an uncommon result of gonorrhea is a bubo or inflammatory enlargement of one of the glands in the groin. In the early stages of the affection a common method of treatment is by a blister. This has one of two effects: it either causes suppuration or absorption. Which of these effects is brought about depends on the way in which the blister acts. It may act directly on the inflammatory swelling, and having itself an irritating effect will simply hasten the process; this brings on suppuration. Or it may act on the neighboring skin and cause depletion in the inflammatory area, thus acting as a counter-irritant; in this case it will produce absorption. Some time ago I tried the following experiment: A man came under my charge with a bubo on each side. I applied a blister to each, putting it directly over the one, but in the case of the other adjusting it in a horseshoe form above the bubo so as to catch the sensory nerves that came from the gland. The first suppurated, and the second was absorbed. Again, consider how a dose of castor-oil acts when it is administered for inflammation. The active principle of the medicine is an irritant, and produces its effect on the mucous membrane of the stomach and intestines. These, on examination in the body of an animal to which castor-oil has been administered before death, are found to be congested, and doubtless this acts in depleting the congested tissue elsewhere in the body.

The end we have in view in counter-irritation is the relief of vascular tension, and however it may be that it is so, yet no doubt we do secure this end just as surely as if we were to bleed from the median cephalic vein. Yet we secure another end—the restoration of the secretions. By removing the hyperemia, we restore the tone of the affected organ. This when we deal with a particular organ. How it is that on the cessation of a fever all the secretive functions recover their tone at once, and how it is that by the exhibition of such remedies as castor-oil or Dover's powder this result follows, we do not know.

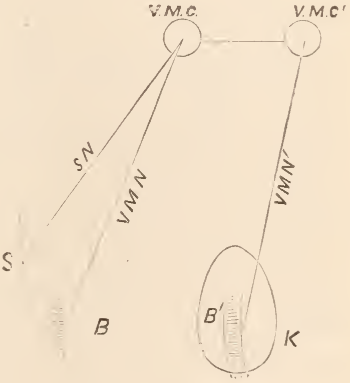
It is now generally allowed that a counter-irritant acts through the nervous system. The nervous mechanism is a combination of an afferent impulse along the sensory nerves of the part to which the counter-irritant is applied. The sensory nerves are in connection with a vaso-motor center; as a result of the afferent stimulus a change takes place in the vaso-motor center; the result of this change is an alteration in the conditions of the walls of the blood-vessels which are under the command of the vaso motor center.



Let me illustrate this by a rough drawing: A mustard-blister is applied to the skin at S; an impulse passes along the sensory nerve (S N); a change takes place at vaso-motor center (V M C); the result is an efferent impulse along vaso-motor nerve (V M N); the result is a change in the size of the blood-vessel in the skin (B). Dilatation takes place.

Let us now suppose that we have an inflammation of the kidney. The blood-vessels of the kidney are dilated with a slow flow of blood through them. Let the word *congestion* be used for this condition, to distinguish it from dilatation of the blood-vessels with a quickened blood flow. For this condition let us use the word *determination;* in both of these conditions there is dilatation. In the first, congestion, the function of the kidney is improperly performed, the kidney is in a state of inflammation. In the second, determination, the function of the kidney is increased, when the blood-vessels of the kidney recover their tone there is a condition which, relatively to the state of determination or congestion, is one which we speak of as anemia. The following little diagram may assist you:

The kidney (K) is in a state of inflammation. The blood-vessels (B') of the kidney are congested. A mustard-plaster is applied over the skin (S) of the loins; the result is a change in the vaso-motor center (V M C), which rules the skin vessels (B). These blood-vessels dilate. We have also, as a result of the counter-irritant to the skin, a diminution in the size of the kidney blood-vessels (B').



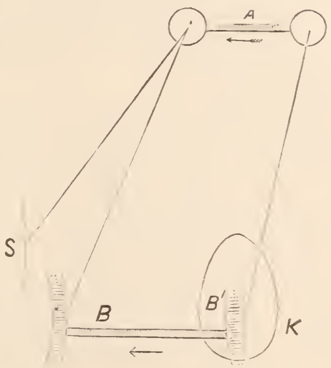
From a state of congestion they pass into a state of determination, with a free flow of urine, and from that to a normal condition, which is relatively one of anemia. In consequence of the mustard, a change has taken place in the vaso-motor kidney center (V M C'), which rules the vessels of the kidney.

What is the nature of this change? The vaso-motor center is an organ. An organ as regards its functions may be in one of three conditions: it may be, first, at rest; second, its function may be increased; third, its function may be abrogated. Let us consider the condition of a muscle when in these different conditions functionally. When a muscle is inflamed, it is congested; when active, as in tetanus, there is determination; when at rest, there is a condition which relatively is one of anemia. Take another organ, the brain: when the brain is inflamed, its vessels are congested; when active, as in thought, there is determination; when at rest, as in sleep, it is anemic. These three conditions are associated with and probably due to an alteration in the blood supply of an organ, such as a muscle or the brain. If true of the whole brain, may it not also in all probability be true of different parts of the brain—may it not be true of a vaso-motor center?

Let us now apply these conditions to the poultice in the inflamed kidney. When the kidney is inflamed the vessels are dilated, the vaso-motor kidney center has lost command; it, like the inflamed brain or inflamed muscle, is congested. Apply your poultice; it acts on the skin center; it is altered as evidenced by the condition of the skin vessels; it is congested. Where does the blood come from? From the neighboring parts—from the vaso-motor kidney center. Vascular tension is relieved; the center regains its power; the kidney vessels are restored to their normal condition.

This explanation appears to me to be founded on a rational basis. I do not know the meaning of any such term as a change in tone of a vaso-motor center; its tone or function must depend on its anatomical condition. When we remember the transient effect of a poultice, requiring its repetition or continuance, it must be evident that the anatomical change in the center is temporary in its nature. It must be the blood supply which is at fault, either of improper quantity or of bad quality. No doubt the latter cause is at work in the feverish state, but the condition is a general one. The effect of the counter-irritant is local in the case of the kidney at any rate; it can not act by directly improving the quality of the blood; it acts by changing the quantity. Remember how minute the organ is: a single minim of blood plasma drained from the vaso-motor center will have an effect on that organ equivalent to the withdrawal of a couple of ounces from the biceps muscle.

Let me try and show by another drawing the nature of the change in the vaso-motor kidney center, which, when congested, is bled into the vaso-motor skin center.



There is a microscopic bleeding at A in direction of arrow, from kidney center to skin center. In the case of the kidney, the counter-irritant relieves the kidney in another way. You can inject the skin of the loins from the renal artery; there is a free anastomosis between the kidney and the skin. The skin vessels are dilated; the blood passes from the kidney B' to B the skin. There is, therefore, a macroscopic bleeding from B' to B, relieving the vascular tension directly.

It may be asked, is it necessary to theorize about the microscopic bleeding at A?—will the macroscopic bleeding at B not be sufficient to account for the good effect of the counter-irritant? Consider the lung when it is inflamed—the condition is relieved by poultices to the chest-wall. In this case there can be no direct macroscopic bleeding; there is no direct anastomosis between the vessels of the skin and the vessels of the lung. The pleural cavity intervenes. Indirectly through the whole mass of the blood, the lung may be relieved. This can not be the main factor. In this case the good result must be due to a change in the vaso-motor mechanism. The bleeding must be *microscopic*, the lung center being bled to supply the skin center.

A counter-irritant does good by relieving vascular tension. It is a variety of blood-letting. It acts in two ways:—first, a microscopic bleeding from vaso-motor center to vaso-motor center; second, a macroscopic bleeding direct in some cases, as in the kidney through the lumbar anastomoses, indirect in others as in the lung, where there is no direct anastomosis.

A dose of castor-oil acts as a counter-irritant. When castor-oil is administered, the intestinal mucous membrane is congested—the oil is directly or indirectly an irritant. The blood is drawn from other organs to supply the intestinal vessels. A purgative, then, may be considered a counter-irritant; so also a diaphoretic or a diuretic: hence their great value in inflammation.

It is hardly necessary to say that by restoring the arrested secretions, they remove the waste products which have accumulated in the blood, and by removing the serum of the blood they still further relieve the general vascular tension.

Metastasis gave surgeons the hint which directed their attention to counter-irritation, and its value in practice. No doubt counter-irritation is an artificial metastasis. The parotid is inflamed; its vaso-motor center is congested. This congestion spreads to neighboring centers. The center of the testicle is implicated; it becomes congested, loses command of the vessels of the testicle, and the testicle inflames. The parotid center is bled—the parotid inflammation is relieved.

It is hardly necessary to do more than mention other means which may be adopted in relieving and curing inflammation. I have tried to show that a counter-irritant acts by relieving vascular tension, and has, to a great extent, replaced the different methods of blood-letting by leeching, cupping, scarifying, and general blood-letting. I have also pointed out that diaphoretics, diuretics, or purgatives, act as general counter-irritants; they also relieve vascular tension. They also act by restoring the functions of the secretory organs—the skin, the kidney, and the bowel. When the pain is great, sedatives are of value—a local sedative as an opium fomentation, a general sedative as opium, hyoscyamus (of special value in inflammatory affections of the genito-urinary system), chloral and bromide of potassium. When the patient is asthenic, stimulants are indicated.

We must not forget the great value of proper diet, or as it is called "kitchen physic." So important do I consider this, that your attention will be specially directed to diet in the lectures on sick-room cookery, which will be delivered by an expert on this subject, in which you are taught how to make the different articles which are most suited for the sick-room. Every physician should be able to cook all the simples needed in a sick-room. Such a knowledge is useful; it gains the confidence of the patient and his friends. Ignorance of these things often brings the medical man into discredit. We are only able to judge of our neighbor's knowledge by our own standard of knowledge. Ignorance will not lower you in the estimation of the ignorant man. Whatever a man knows, he thinks should be generally known. The mother of the patient will not interfere with your medical theories or your medical practice, however wrong they may be; she will see that her child swallows whatever you order; she is ignorant of these things, and your ignorance (if present) will be undiscovered, but it is altogether a different affair if you order her to give the child some food, and are unable to give her the necessary instructions for its preparation. She may feign ignorance to test your knowledge. If she finds you ignorant in one thing, then she is apt to argue that you are ignorant in all. Study sick-room cookery.

The next lecture will be devoted to suppuration and the principles of antiseptic surgery. I have a reason in associating suppuration and antiseptic surgery. It is a common mistake to suppose that when suppuration occurs in a wound, the antiseptic management has failed; it is forgotten that putrefaction, which is prevented by antiseptic precautions, is only one cause of suppuration. The use, for instance, of a powerful antiseptic will cause suppuration; tension is another cause; a severe inflammation a third cause.

OBSERVATIONS ON ONE HUNDRED AND TWENTY-TWO CASES OF PNEUMONIA.

BY OSCAR T. SCHULTZ, M. D.

The principal forms in which pneumonia occurs are, as a primary (perhaps infectious) disease, croupous pneumonia; and, as a secondary affection, catarrhal pneumonia. In these two forms it constitutes a large percentage of the acute cases of disease which come into the hands of the practitioner of medicine, and contributes more than any other cause to swell his mortality list. Thus, during a four years' practice at Mt. Vernon, the deaths from these forms of pneumonia amounted to forty-eight per cent. of my mortality from all acute diseases, and to thirty-one per cent. of my total mortality. The importance of this disease, therefore, compels the attention of the physician to it, and the desire to establish in what respects these forms of pneumonia, as they are prevalent in this part of the country, correspond to and in what they differ from the views held regarding them by authors, has induced me to collect and study the cases that have come under my observation. The present paper is the result of my labor. In it I scarcely hope to present anything new, for the field has been too well worked by abler men, with better opportunities at their command; still if I can demonstrate that pneumonia, as it occurs among us in its croupous forms, presents many peculiarities stamped upon it by influences which it would be foreign to this paper to investigate, I shall rest satisfied. In addition I will endeavor to show that, by adhering to a prompt, energetic and intelligent line of treatment, better results can be attained than are generally allowed by authors.

The cases of pneumonia upon which this study is based were observed from May, 1875, to May, 1879, a period of four years; they were one hundred and twenty-two in number—twenty-eight being cases of catarrhal, and seventy-four of croupous pneumonia.

Catarrhal Pneumonia.—Catarrhal pneumonia, being a secondary disease, depends for the time of its occurrence upon the prevalence of those diseases of which it forms the complication. Of the twenty-eight cases, seven developed during a bronchitis—two of which were capillary, three simple acute, and two chronic; three followed upon measles, sixteen during pertussis, and two in consequence of diphtheria. They were divided among the twelve months of the year as follows:

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
2	2	1	—	1	1	1	8	5	—	3	4

of which the cases from June to November, both included, were, with two exceptions, from pertussis. Infancy and childhood on the one hand, and old age on the other, contributed to these cases—five being less than one year old, six from one to one and one-half years, nine from this to three years, five from three to seven years; and two—one sixty-three, the other eighty-seven years. No cause could be made out for the complication in any of the cases, excepting in two of those where the pneumonia set in after measles, and here "taking cold" could be demonstrated as a cause. The onset of the pneumonia was always marked by the accession of fever, where none was previously present, or by a rapid and high rise of the temperature where the original disease was accompanied with fever; no chill marked the setting in of the complication. The onset was sudden and severe in the measles, acute and chronic bronchitis patients, the temperature often rising rapidly to 105°; insidious, when the pneumonia developed during pertussis and capillary bronchitis. In the first of these forms in which catarrhal pneumonia presented itself, there would be, with the development of the inflammation, an almost complete cessation of the cough, the latter becoming tight, short and at times painful; the pulse became more frequent, but there would be no great change in the pulse-respiration ratio: there would be restlessness, with more or less stupor and marked dyspnea and cyanosis. This form of catarrhal pneumonia would always run a favorable and rapid course, notwithstanding that there was very considerable consolidation present in some cases. The second form of the disease would generally begin with evening rise of temperature, the children becoming more and more prostrated in mind and body. The pertussis paroxysms would sometimes disappear completely, and if not would always be fewer and less severe than before the onset of the pneumonia; the cough becoming shorter, hacking, dry, and as a rule not painful. Gradually the intermittent type of the fever would become remittent or even continued, the temperature hardly ever, however, rising above 102°. The course of this form of pneumonia would be slow, insidious, full of relapses and the mortality high. In both forms there would be the greatest irregularity in the temperature curve; the highest points being now in the evening, and now in the morning, and recurring now at regular and now at irregular intervals in the same case. Defervescence always took place gradually, even when aided by quinia.

The remedial agents relied upon in the treatment of catarrhal pneumonia were belladonna, calomel, tartar emetic, quinia and whisky, given according to the following indications:—When the fever was high, the mind blunted, the cough dry, infrequent and perhaps painful, belladonna and calomel were given alternately every hour. If the fever remained high, above 101½°, for three or four days, a full dose of quinia was administered in the evening. This was invariably followed by an almost normal morning temperature, and moist râles in the inflamed parts of the lungs; then tartar emetic or oxymel scillæ with ipecacuanha was continued until the lungs seemed clear. In all cases with high fever whisky was given regularly every hour or two, day and night, in one and a half drachm doses, until the fever abated. The cases which developed during whooping-cough, or during capillary bronchitis, were usually treated with tartar emetic and belladonna, as in the following formula:

℞	Antimon. et potas. tartr.,	gr. ij
	Extr. belladon. fluid,	gtt. iv
	Pulv. glycyrrhizæ,	gr. lx
	Aquam ad.,	℥ iij. M.

S. One teaspoonful every two hours; or where there was more febrile action, calomel and tartar emetic were alternated every hour. The whisky was in these cases replaced by a light and nourishing diet of eggs and milk; quinia was never given in these cases. In this way convalescence was usually established in the chronic form in from six to eight days.

In the catarrhal pneumonia of the aged, digitalis or tartar emetic, together with a treatment of the threatening symptoms, was employed; and if the fever was obstinate quinia was also used. With this course of treatment I lost six out of my twenty-eight cases, giving about 21.4 per cent. against 48.3 per cent., the mortality computed by Juergensen from the reports of five authors (*vide* his article on Catarrhal Pneumonia in Ziemssen's Cyclopædia, Vol. V, page 221); and the results are even more favorable than my figures indicate when we consider my record of deaths. For one was a man aged eighty-seven, in whom pneumonia supervened upon a chronic bronchitis; the second, a child of seven months, scrofulous, with habitual cough, and where the pneumonia complicated a pertussis; the third a girl, aged two and a half years, with capillary bronchitis; the fourth, a child of ten months, without teeth, puny, in whom pertussis developed during a summer complaint, and pneumonia closed the scene with hydrocephaloid symptoms; the fifth, a boy aged one year, with pseudo-membranous laryngitis, in whom the lungs collapsed on the third to fourth day, and though the laryngeal symptoms abated, death took place on the fifth day; the last a boy aged five years, in whom the diphtheritic exudation advanced upward and downward, irresistible as death itself.

Croupous Pneumonia.—Croupous pneumonia constituted 12.15 per cent. of the mortality from acute diseases, from November to May. It was one of the most frequent causes of death in aged or cachectic subjects, and formed 18 per cent. of my total mortality, and 27.6 per cent. of my mortality from acute diseases. The following table will show the distribution of the seventy-four cases observed during the several years and months:

A table showing the distribution of ninety-four cases of Croupous Pneumonia, during the years and months.

YEAR.	May.	June.	July.	August.	Septemb'r.	October.	Novemb'r.	Decemb'r.	January.	February.	March.	April.	Total.
1875-76	1	1	1	....	....	1	2	10	6	2	6	5	35
1876-77	1	....	....	....	1	1	3	3	2	....	6	6	23
1877-78	2	1	....	....	....	1	2	4	2	....	....	1	13
1878-79	2	1	....	....	....	....	1	....	5	8	5	1	23
Total	6	3	1	....	1	3	8	17	15	10	17	13	94

Dividing the year into two parts, of which the one from May to November comprises the warm and hot months, and the other from November to May the cool and cold, we find that 14 cases or 14.9 per cent. occurred during the first, and 80 or 85.1 per cent. during the second. To divide the year as above into a cold and warm portion seems to be more profitable for determining the time of occurrence of pneumonia than the division into seasons; however, in this case the distribution of my cases would be as follows:—winter 42 or 44½ per cent., spring 36 or 38.4 per cent., summer 4 or 4.2 per cent., autumn 12 or 12.8 per cent. The maximum frequency was in December or March, the minimum in August. Although my figures are but small, still they seem to teach two important points; first, that we have far less of croupous pneumonia during the warm and hot months of the year than in Europe; and, secondly, that our maximum and minimum frequency occurs far earlier.

Juergensen, in his masterly monograph on croupous pneumonia, in Ziemssen's Cyclopædia, Vol. V, finds from the mass of his statistical material that there is a difference in the time of the occurrence of this disease in Europe between a continental and an insular climate. The following table will show the difference between the results of his observations and my own:

A table comparing the time of the occurrence of Croupous Pneumonia.

PLACE.	Winter.	Spring.	Summer.	Autumn.	Maximum freqnency.	Minimum frequency.
Europe—Continental climate	27.3	36.2	18.8	17.7	March to May	Sept to Nov.
Europe—Insular climate	36.0	25.7	15.7	22.4	Dec. to Feb'y	Jnly to August.
Mt. Vernon	44.6	38.4	4.2	12.8	Dec. or March	August.

I am unable to decide in how far my observations conform with American experience, as the American authors whom I have been able to consult limit themselves to the general statement that this disease is more prevalent in winter and early spring.

My experience agrees with the fully established fact that neither a continuously high nor a continuously low temperature has any influence upon the causation of pneumonia, but that rapid changes in the daily temperature are a most fruitful cause. Thus during the long cold spells of December, January and February last, but few cases of croupous pneumonia came under observation; but as soon as the cold broke up, they became numerous, and more so after each new cold season than after the preceding one. Thus also the year 1878, a year remarkable for the absence of abrupt changes of temperature, was also remarkable for the few cases of pneumonia, only seven in number, observed during the same. Chilling of the body, either by exposure to the inclemencies of the weather, or from rapid changes from heated rooms into the cold open air, in my opinion acts in the same way as changes in the daily temperature, and in about forty per cent. of my cases it could be satisfactorily proved. From a careful study of the etiology of my cases, I am inclined to regard sudden and severe changes of temperature, be they a change in the daily temperature of the place or a change in the temperature of the individual brought about by a chilling of the body, as *the sole cause of a general application* in the production of croupous pneumonia. An enfeebled constitution from whatever cause predisposed many of my cases to an attack of pneumonia. So also our marshy, malarial country is an excellent field for the ravages of this disease. But these causes can only be regarded as links in a chain, which leads inevitably to the only general cause to be found for this disease. Thus our malarial country produces a large number of cachectic individuals, and these can not offer that resistance which alone could enable them to stand sudden changes in temperature with impunity. I am well aware that the tendency is to admit a more limited influence in the causation of croupous pneumonia to changes in the daily temperature, and to deny that from chilling of the body and exposure altogether, numerous figures being brought forward to prove that just such occupations in which the individual is most exposed present the lowest per cent. of pneumonia. But it is my experience that our farmers bear exposure but badly. Owing undoubtedly to their thin blood, they hug the stove or fire-place during cold weather, and scarcely venture out to attend to the most urgent calls. If ever they are compelled by necessity to expose themselves to the inclemencies of the weather for any length of time, they soon are chilled through, and the result is an attack of "winter fever." The compilers of statistics simply forget that their figures show a certain degree of inurement to exposure, and not the harmlessness of exposure itself.

Of the ninety-four cases under observation, fifty-seven were males and thirty-seven females. The age was as follows:—From infancy to sixteen years, twenty-nine; from sixteen to forty years, twenty-nine; beyond forty years, thirty-six. One attack of pneumonia seemed to predispose to another; thus, in my four years' practice, four persons were treated twice, and in all the same side was affected; three others had had pneumonia before—two once and one six times.

Less than one-fifth of my cases presented the sthenic character; the rest were asthenic or typhoid. The sthenic cases were in young subjects, who had remained comparatively free from malaria; but even in these cases the fever had a marked tendency to adynamia. The asthenic cases were in individuals who had been broken down by chills or bilious fever, or whose constitution had been impaired by some other cachexia or by old age. This marked tendency to asthenia, which in the majority was present from the outstart, and in the smaller number became manifest quite early in the course of the disease, was present during all years and seasons alike; and I can not say that the *genius epidemicus* exerted any influence in this direction. The *genius epidemicus* of certain years or seasons did, however, exert an influence upon the accompanying symptoms of the pneumonia; for instance, many cases observed during the present year had the coryza, tonsillar enlargement, gastric and intestinal catarrh, and the rheumatoid pains of influenza; and thus indirectly it may be held responsible for an increased mortality, simply because the tendency to adynamia may be increased by such symptoms. Thus my view of "typhoid" pneumonia is that it is a croupous pneumonia, which, in our enfeebled constitutions, runs an adynamic course. This view is diametrically opposed to that of Dr. Dickson, as expressed in his "Elements of Medicine," who makes typhoid pneumonia a distinct disease, and classes it along with typhus, typhoid and catarrhal fever, while he treats of ordinary pneumonia among the diseases of the respiratory organs. It is, however, substantially that of Da Costa, Flint, Wood, Niemeyer and Juergensen. The latter, commenting upon the report of adynamic pneumonia as it occurs at Basle, made by Liebermeister, who is inclined to accept a different etiological factor for the causation of this form of the disease than for croupous pneumonia generally, denies that there is such a factor, and then proceeds in the following words, which the importance of the subject will justify me in quoting *in extenso:*—"Leaving out of the question Basle, where the disease is endemic, and the isolated epidemics, in which this form is especially frequent, we find writers, myself included, unanimously agreeing that 'typhoid' pneumonia occurs in persons who are from some cause or other in a weakened condition. Hunger, abuse of alcohol, previous or still existing diseases, excessive bodily or mental exertion, advanced age and unusually bad hygienic conditions, are the causes most commonly assigned. For the production of asthenic pneumonia, it is also generally necessary that there should be a diminished power of resistance to disease. I regard croupous pneumonia as on all occasions an infectious disease, and will give my reasons for this view hereafter. Entertaining this view, I prefer to suppose that the endemic form at Basle, and the epidemic forms in other places, are both due to an unusual intensity of the infecting principle. The distinction between this and the ordinary form of pneumonia is therefore, in my opinion, only quantitative and not qualitative."

This opinion of such an able and careful observer I should, from my experience, like to indorse, but only in so far as he rejects the activity of a specific "typhoid" factor in the production of "typhoid" pneumonia. His assumption of an unusual activity of the causative principle I must regard as unnecessary and uncalled for. *For it is my belief that given a cause sufficient to produce a croupous pneumonia of moderate severity, and the constitutions, such as the far larger proportion of our patients present, and the disease must necessarily run a "typhoid" course.* This conclusion, I think, is justified by the course which this disease maintained in most of my cases. Thus, taking fifteen consecutive cases, which were very carefully observed and of which I have very full notes, I find that the onset was but exceptionally sudden, more often there were marked prodromata for a various length of time; a chill, as a rule, marked the onset of the disease; after this the fever rose. The fever attained its maximum after three or four days, and then rose to 105° in two cases, to 104° in three, and ranged from 101½° to 103° in the balance. Notwithstanding this low grade of temperature the pulse-respiration ratio was but four times as 3 to 1, which on Juergensen's authority would justify a good prognosis; eight times it ranged from ${}^{1}{}_{1}{}^{9}$ to ${}^{2}{}_{1}{}^{8}$. The disease was localized in one lobe of one lung in twelve cases, involved the remaining parts of the same lung in two, and passed from the inferior lobe of one lung to that of the other in one case. The defervescence was as a rule gradual; twelve hours in two, twenty-four hours in three, and thirty-six to forty-eight hours in the balance. In nine cases there was marked danger from collapse; in two it became confirmed by the fifth day, death taking place by the seventh. The duration of the fever, from the chill to the establishment of complete defervescence, was eight days in two, seven in four, five in four, four in two, and thirty-six hours in one case. These cases, which are but representative, in my opinion show that with a local affection of moderate severity I had to contend against a general condition, which brought great danger, and that this danger was from asthenia, the cause of which was to be sought for in some constitutional vice of the patients.

Complications were rare; heart disease, pleurisy and malaria were the only important ones. Of the first of these I have kept no record. Three cases were complicated with an extensive pleuritic exudation, of which one recovered promptly without any untoward symptoms; in one empyema developed, but the exudation disappeared in about two months; in the third empyema also developed, and pneumothorax was followed by death in forty-eight hours, three weeks after the termination of the pneumonic fever. In the cases complicated with malaria, a chill would appear daily at the same hour; there would be a marked increase in the fever, with an aggravation of the general symptoms, and usually with severe pain in the spleen, with marked swelling of that organ; there would never be an intermission in the fever. A full dose of quinia or cinchonidia sulph. would cause the chill to disappear, and either leave the pneumonic fever unaffected, or else in a few cases bring about defervescence also. The complication with malaria manifested itself in the same way and pursued the same course as when malaria is superadded to any other disease; and as little as we would be justified on this account of speaking of a miasmatic bronchitis or a miasmatic pertussis, would it be proper to call these cases miasmatic pneumonia, with Wood and Da Costa.

(To be continued.)

FOREIGN CORRESPONDENCE—OUR LONDON LETTER.

LONDON, July 15, 1879.

MY DEAR YANDELL: Your brother is among us, and is heartily welcomed by all your old friends. He is apparently successful in his search after knowledge and health both. I was sorry we could not get him down to the opening of the New Wing and Theater at Normansfield—the great private Institution for the Training of the Feeble in Mind. I wished him very much to be present, as there was a great gathering of prominent members of the profession, especially of alienist physicians. There were present John C. Bucknill, his co-worker at the Manual of Psychological Medicine, Hack Tuke; Crichton Browne, Orange of Broadmoor (for Criminal Lunatics), Rayner of Hanwell, Lalor of the Richmond Asylum, Dublin; Gray, of the New York State Asylum; the President of the College of Physicians, Mr. Spencer Wells, Grailey Hewitt, Braxton Hicks, David Ferrier, W. B. Carpenter, and others. The Earl of Devon presided and opened the buildings, expressing his great satisfaction with all he saw, saying that for completeness of arrangement he had never seen the like. Dr. Langdon Down, the proprietor, described in a few brief words how he had, from an early period of his studies, given his mind to the wants of imbeciles and idiots, and the best means of helping these unfortunates. In pursuit of this desire he became in time the Superintendent of the Earlswood Asylum for Idiots. After much experience there, he commenced the private institution near Hampton Court, which we visited on Midsummer day. A magnificent luncheon was spread in the private theater, and was thoroughly enjoyed preparatory to the speech-making, which, as you can suppose, was good,—Crichton Browne being first of course.

This institution is becoming rather a national affair than a mere private enterprise, and its repute is not confined to the four seas of Britain. Not only does the building itself deserve the highest commendation, alike for its construction and its administrative management, but its situation is well selected. Dr. Down found that a high temperature was very conducive to the development of the imperfect brain, and consequently chose, as the site for his Training College, the warm valley of the Thames, close to the famous Kew Gardens, the nearest approach to a tropical climate within ready reach of London. We were all sorry when the time arrived for the departure of the special train which Dr. Down generously provided for us, as thus our pleasure was cut short. The hundred and odd guests felt, as they were whirled home, that they had taken part in a good work; and wished Dr. Langdon Down, and his able coöperator Mrs. Down, all success in their excellent undertaking. I am sorry there was not a representative from Kentucky to witness the sight and take a part in the festivities.

There are few maladies to which man is liable which embitter existence more than obstruction to the exit of the contents of the bladder. Strictures are more or less amenable to surgical measures, but hypertrophy of the prostate or vesical tumor are less manageable. Sir Henry Thompson recently read a paper before the Royal Medico-Chirurgical Society, on the subject of operation for the relief of those persons so afflicted. He said that when a patient had long ceased to be able by his own efforts to pass his water, and the catheter had to be passed very frequently and with much pain and difficulty, it might become desirable to make a permanent opening into the bladder above the pubis. This could be done effectually and safely by means of a staff, as in the high operation for stone. In these cases, however, the bladder is contracted and small, and therefore great care is requisite in performing the operation. The following directions would, he said, be found very useful in simplifying the operation: A curved hollow sound, having a stilet with a bulbous end, is introduced into the bladder, the point being made to project against the wall of the bladder just behind the symphysis. A small incision is then made in the abdominal walls into which the finger is inserted, and the exact place in the bladder wall perforated; care being taken to see that the incision is not too large, so as to avoid the escape of the urine by the side of the tube introduced. A gum elastic tube, having a shield like that of the ordinary tracheotomy tube, is then passed into the end of the sound after the stilet is withdrawn, and so passed into the bladder. The relief thus afforded is very great, but the operation has only been adopted in extreme circumstances and to render the remainder of life tolerable. Great care is required to keep the instrument clean. In three cases of hypertrophied prostate and in one of villous cancer, he had performed this operation. He concluded by proposing the following question:—May it not be desirable to adopt such a procedure in some instances at a somewhat earlier period in the history of such cases?

Some little discourse on some special maladies of woman may not be out of place or uninteresting to your readers. Dr. Ernest Herman, the assistant obstetric physician to the great east end hospital—the London—has recently published some cases of fibroids of the uterus treated by ergot, or rather its active principle, sclerotic acid. In consequence of the difficulties in the way of administering medicines hypodermically to hospital out-patients, many of whom live at some distance, the drug was mostly administered by the mouth. In one case there was a firm, tolerably symmetrical and rounded tumor in the lower part of the abdomen, reaching to the umbilicus. The patient was anesthetized and the tumor was found to be uterine and movable with the cervix. She was put upon steel, with sulphuric acid and sulphate of magnesia. Subcutaneous injections of sclerotic acid (half a grain) were made daily over the region of the tumor. After the injections were commenced, the tumor began to steadily diminish in size; in a fortnight there was room for two fingers betwixt the summit of the tumor and the umbilicus. The decrease in size was most rapid at first, and afterwards became slower. The patient left the hospital at her own request before the treatment had been as long continued as could be desired, being so much better from the treatment.

In another case, though there was no reduction in the size of the tumor, there was marked and persistent improvement in the symptoms. Here there had been severe hemorrhage, preceded by long-continued menorrhagia, in a sterile married woman. A small firm tumor, about the size of the fundus uteri, was found in front of the uterus, rather to the right. After two months of the remedy the normal menstrual periods were almost reached, and there was no leucorrhea. After four more months the flow was regular but profuse. Six months later the catamenia were regular but scanty, the tumor remaining unaltered.

In the third case, there was a long history of uterine troubles, supplemented by aortic regurgitation. A firm, hard nodular tumor, which was movable, was found in the uterine wall. After three months' treatment the hemorrhage was very much lessened, and the pain was much diminished.

In a fourth case, the medicine was taken irregularly for seven months, the patient several times absenting herself and then returning for the medicine. The amount of loss was very much reduced by the drug. It was this which sent the patient back to the hospital for her medicine.

In a fifth case there were hemorrhage, dysmenorrhea and leucorrhea, and a long history of uterine troubles. Here also, under most unfavorable circumstances, much relief was afforded. The impression left upon the mind is this:—that so much benefit followed the treatment that there is much hopefulness remaining that more regular and persistent use of ergot will lead to even better results than those attained by Dr. Herman. He assigns no reasons in his report of the why of his stopping the drug, and does not even hint at any bad effects arising therefrom.

Dr. Tilt writes on Uterine Inflammation at the change of life. He says that from the thirty-fifth to the forty-fifth year of her life, the sexual life of woman is less intense than before: "the married have fewer children; the unmarried think less of marriage. Perhaps this diminution of sexual energy accounts for a corresponding decrease in the number and the intensity of inflammatory uterine affections." He thinks, however, that many women enter upon the change of life with uterine diseases that have either been undetected or been but imperfectly cured; and that all such disease is sure to be aggravated and brought to light when the menopause is reached. When the general health fails local disease is sure to manifest itself, with its usual troublesome symptoms. He holds strongly that all diseases existing before the menopause is reached should be treated on their merits, "for they will be made more difficult of cure by the dodging time and by cessation." He thinks that late pregnancies exercise an injurious influence. He says:—"Puerperal involution proceeds at a slower rate, and is oftener defective in women confined during the last decade of reproductive life; and I believe that not unfrequently a womb that has not been able to effect puerperal involution, is called upon to work out the ultimate uterine involution of the change of life. I am convinced that 'the dodging time' is sometimes protracted to unusual length by the fact of the womb having thus remained considerably too large after the last pregnancy, and without other disease than hyperemia of its internal surface, and not always that." And this may all go on while the cervix is healthy and even smaller than usual. In such cases he has often passed wax bougies into the uterus from four to five inches, indicating a state of enlargement or subinvolution. Very frequently these patients are obese. In such cases he uses a combination of ergotine and nux vomica. "In other women, in whom the womb is in a state of defective involution at the beginning of the dodging time, flooding is the frequent symptom of more acute hyperemia, or of internal metritis, brought on or aggravated by the stoppage of an habitual outlet to pelvic congestion. This is not all: inflammation is just as much a bar to the ultimate involution of the womb at the change of life as it is to the right progress of puerperal involution of the same organ; and when, at the dodging time, an enlarged womb becomes inflamed, there is little chance of its size decreasing till after cessation. This enlargement of the womb, as a not uncommon condition at this epoch, explains why some women have an outflow of serum or muco-pus at some stage of the intermenstrual period—generally inodorous, but I have known it to be offensive, and greatly to distress a patient. Half a teacupful of pus or bloody pus may be also suddenly evacuated, and give the idea of an abscess, whereas the occurrence clearly points to internal metritis." The appropriate measures for such subinvolution is to diminish the uterine congestion or inflammation, and to maintain a free passage through the cervix for the uterine secretions. These purulent, or hemo-purulent discharges may take place at rhythmical intervals, corresponding to the menstrual periods.

The Harveian oration, at the Royal College of Physicians, was delivered this year by Sam. Wilks, and was deserving of the man as well as of the occasion. He described the form of thought of the Elizabethan age, when Bacon threw off the yoke of Aristotle and Plato, and not long after Harvey found force of will to put aside his Aristotle and his Galen, and search nature for himself. After referring to the mechanism of the cells of the common bee, the relation of the lightning to the effects of rubbing a piece of sealing-wax, he said:—"The glories of the bow in the skies, though gazed at for ages, had never suggested the interpretation of the spectrum; but it was by observation of a ray of light passing through a hole in a window of a small room that the meaning of the rainbow was revealed. So in physiology, we are apt to forget that it is by slow work, step by step, and often quite apart from the subject whose interpretation we seek, that we obtain fruitful knowledge. No contemplation of the human eye would have suggested the camera; but the building up of the camera by a series of inventions explained the mechanism of the eye. We have endeavored to teach the function of the tympanum and its chain of bones by the knowledge in our possession; but we now think that this was insufficient, since the physicist has discovered the intimate relation between electrical and sonorous vibrations in his microphone. I think I am right in saying that no piece of mechanism was ever framed in imitation of a straw of wheat or the hollow thigh-bone; but when, by a series of experiments, the engineer discovered that with the least material he could gain most strength by making his support as a hollow girder or tubular bridge, then we applied his discovery to interpreting the culm of grass or the human os femoris. No contemplation of the nerves ever excited man's imagination toward the fabrication of an electric telegraph; but, on the other hand, the insulated wire, the result of much labor and thought, was found to have its counterpart in the nerves, whose component parts it then explained. The action of salines and colloids on the human body was learned by means of parchment and tubes in the laboratory. These facts should point out to us how fruitless it is to attempt to understand complex structures and phenomena before we have arrived at the necessary steps for their solution."

Reviews.

Lessons in Gynecology. By William Goodell, A. M., M. D., Physician in charge of the Preston Retreat, Professor of Clinical Gynecology in the University of Pennsylvania, etc. With eighty illustrations. Philadelphia: 1879.

The number of works upon gynecology now rapidly issuing from the press is evidence of the deep interest which has been awakened on the subject, and certain proof that it is making rapid advances.

The present candidate for professional favor differs somewhat from the ordinary character. In a very brief preface, the author disclaims for the work the character of a treatise, and states that it is made up of clinical lectures and journal articles, which have been thrown together in book-form; and that it is the outcome of "a busy life and a slow pen," rather than of a serious and careful attempt at authorship. This mode of book-making entails certain defects as a necessary consequence, and we find no exception to the general rule in the present instance. Under such circumstances there must be a great inequality, both in the space devoted to the different subjects and the manner of their consideration, and an incompleteness in regard to the whole. When to this is added want of care in proof-reading—a fault more of the publisher than the author,—there can not fail to be felt a deep regret that the little more care and effort necessary to make an unexceptionable book was not expended.

Having said this much our fault-finding is at an end, and we have the far more pleasant task of calling attention to some of the good points and excellent features of the work. It is essentially clinical in character, and why the term "Lessons" should have been used rather than "Clinical Lectures," does not very clearly appear. The subjects are mostly treated of, in connection with cases, the history and details of which are given; and, with one or two exceptions, there is an absence of disquisition upon the pathological features of diseases—symptomatology and treatment being very fully considered. The book is, therefore, an extremely practical book, which is what might have been expected from the long clinical experience of the author, and his well established reputation as a teacher. His judgment and skill in the latter capacity is shown upon every page; and if we mistake not, the student and inexperienced practitioner will find here "lessons" of which he will at once appreciate the practical value. The various steps of operations are carefully described, and measures of treatment minutely indicated. We may also refer to the number of illustrations of instruments which is given. This is a point too frequently overlooked by authors, and especially in regard to new instruments. Daily use has begotten familiarity, and they forget that the vast majority of their readers live far out of reach of instrument dealers. Thus, we could not refer to any "treatise" containing a cut and description of Paquelin's cautery, such as given here; and it is not so very long ago that, for want of such information, we were obliged to make quite a journey in order to see the instrument and ascertain if it would serve our purpose in an operation.

To these features of the book must be added a decided originality, which was to have been expected from the amount of experience enjoyed by the author, and the character of his contributions to the medical press. The work is no mere transcript of the opinions of others, or statement of the generally received practice in the various diseases of which it treats. Operations and measures of treatment are modified and varied according to the dictates of his own judgment and experience, and do not generally suffer by the modification.

The work covers fairly well the whole field to which it is devoted, without being exhaustive. It is unnecessary to enumerate the chapters and give their headings, but we will refer briefly to a few points. After a preliminary lesson on instruments, and in which we miss instructions as to *modes* of examination which were to be expected, there are two chapters on diseases of the urinary organs, which are brief but useful. As one of them is on caruncle of the urethra, it is to be hoped that it will aid in directing attention to this quite frequent disease, so often overlooked because its symptoms are misunderstood. To these follow two on fistulæ of the female genital organs and laceration of the perineum. In the former we commend the diagram on page 44, illustrating the different forms of fistula, as excellent; and we also find mention of the rare forms of uretero-vaginal and uretero-uterine fistulæ, with reference to the operation of one of the editors of this journal.

Lesson VIII is all too brief for the subject of which it treats—the Local and Constitutional Treatment of Chronic Metritis and Endometritis. Nevertheless it will be found as useful as any chapter in the book. For local application to the diseased uterus, the author places at the head of the list a combination of iodine, chloral and carbolic acid, first proposed in this journal by Dr. J. P. Thomas, of Kentucky, May, 1877. In treating this class of cases, it will be seen that he does not trouble himself very much as to whether it is a "cervicitis" or a "metritis;" but in every case carries the solution used "up to the fundus of the womb whenever the internal os permits it to pass." His reasons for this are:

> "(*a*) If the mucous coat is alone involved, the symptoms often fail to inform me how far up the disease has extended. (*b*) Owing to the absence of any submucous connective tissue, the inflammation of the mucous membrane must sooner or later more or less involve the parenchymatous structure, and this must be avoided at all hazards. (*c*) Whenever the internal os is sufficiently patulous to admit the armed applicator, I accept this fact as an evidence that the disease is not limited to the cervix. (*d*) By this practice, in a measure empirical, I err on the safe side, and obtain far better results than I did when limiting my applications to the cervical canal."

He teaches the use of two remedies which are not generally taught or accepted by the profession, and indeed are sometimes denounced. We allude to intra-uterine injections and the application of fuming nitric acid. The former he has resorted to of late in obstinate cases, notwithstanding the well known objections, "with much satisfaction," and as to the latter:

> "When granular erosion is associated with a gaping or an everted os, there is no better treatment than by this acid. . . In menorrhagia springing from a congestion or from a subinvolution of the womb, in cases of wombs too tender to bear the pressure of a hard pessary, in obstinate leucorrhea, it does much good when boldly carried into the uterine cavity. I am very partial to this escharotic, nor have I yet found that its use is followed by symptoms more urgent than those produced by the milder caustics."

Due caution is of course inculcated as to the use of these powerful remedies, yet

> "I have come to the conclusion that he is the most successful gynecologist who is the most plucky, and that, no matter how severe or how mild the treatment of uterine disorders, the percentage of accidents will be about the same, and that a very low one."

Among several passages here of great practical value, we can only find room for the following:

> "I am more than ever impressed with the fact that in general the caustic applications are made too continuously for nature to have fair play, and that irritation and congestion are actually kept up by too short intervals of rest. It is therefore my habit, after making from four to six applications, each a week apart, to send my patient away just before a catamenial period, with directions not to return until two such have passed. Not only will much be gained by this intermission in the treatment, but an opportunity for impregnation is thus given."

In the constitutional treatment of uterine diseases quite a selection of formulæ is given, and brief notice of the most difficult task of all—"to distract patients from self, and to make them forget that they are invalid!" Would that he had told us how to do it! When the author comes who tells us how to deal successfully with this feature of these diseases, who teaches us how to stop the daily repetition of the "old, old story" of aches and pains, the magnifying of trivial ailments, the watching of symptoms, and the nursing of troubles, he shall have a golden statue in the temple of Esculapius!

The comparatively new subject of laceration of the cervix is duly considered, and the operation for it fully described. While recognizing the importance of this lesion, and pointing out the liability to overlook its existence, still it is not magnified beyond its merits; nor is every woman who has an ununited rent of the cervix believed to be doomed to sterility or to hopeless invalidism.

There are two chapters of this work which we believe to deserve especial commendation. The first is on Vegetations of the Endometrium, a very frequent and one of the most frequently overlooked causes of metrorrhagia and menorrhagia. The existence of an *endometritis hyperplastica* is not recognized by many of our writers; while in regard to the use of the curette, the only efficient and reliable mode of treatment, there is a wide difference of opinion among standard authorities, some denying it a place in the armamentarium or even denouncing it. Under these circumstances we are glad to find a just view of the importance of this condition, with a full consideration of the subject, extending to the pathology as well as the treatment. In the latter, however, we miss any notice of Emmet's curette forceps—an excellent instrument for those not practiced in the use of the curette, or those afraid of it from the exaggerations of its opponents.

The other chapter is on Spaying for Fibroid Tumors of the Womb and for other Disorders of Menstrual Life. We must quarrel with the term "spaying," which is repulsive from its association with very low animals. Intended to escape the incongruities of "normal ovariotomy," it is no improvement, and we have here one of those philological difficulties which seem to be insuperable. How many attempts have already been made to replace "ovariotomy" with a more precise or an absolutely correct word, and yet without avail. In this chapter is found a table giving the number of times this operation has been performed, the name of the operator, and the results. It would be difficult, if not impossible, to find elsewhere complete tabulated statements of, first, the cases in which menstruation continued; and, second, of those in which it ceased after removal of both ovaries.

The relative and positive value of Dr. Battey's operation has not yet been decided. The author thus states his views:

> "I am by no means sure that when the question comes to lie between the removal of the ovaries and the enucleation of a fibroid imprisoned by an undilated os uteri, the former will not be the operation of the future. When, however, vaginal enucleation is impracticable, and the question is reduced to one of three, namely, spaying, or enucleation by gastrotomy, or the extirpation of the invaded womb, there is to my mind but one answer, and that one in favor of spaying."

At the close of the volume, we find the address delivered by the author as President of the American Gynecological Society at its last session, on "Nerve-Tire and Womb-ills," and two or three hygienic chapters of great interest. The "Practical Hints for the Prevention of Uterine Disorders" are of great value, especially those relating to puerperal convalescence, although we could not conscientiously join in an attack on the obstetrical binder. The "Relation which faulty closet accommodations bear to the Diseases of Women" is an unsavory subject, but none more important comes within the domain of domestic hygiene, and no physician can fulfill his duty as guardian of the health of the family without giving this matter attention. In regard to the abuse and unnatural use of the sexual relations, the cheats and frauds of nature in regard to conception and child-bearing, the author is plain, outspoken, and justly severe. The whole subject is handled vigorously and without gloves, and there is some good reading for any of the profession who may be tempted to prove recreant to the sacred trusts which are in their charge. We can not do better than give a specimen:

> "I dare any political economist to show me one innocuous expedient whereby conception can be avoided. I challenge him to

name a single preventive plan which will not do damage either to good health or to good morals. Even natural sterility is a curse; show me a house without children, and, ten to one, you show me an abode dreary in its loneliness, disturbed by jealousy or by estrangement, distasteful from wayward caprice or from unlovable eccentricity. Depend upon it, gentlemen, there are no thornless by-paths by which man can skulk from his moral and physical obligations; no safe stratagems by which he can balk God's first blessing and first command. Therefore, as hygienists, if not as moralists; as physicians, if not as patriots; as guardians of the public health, if not as philanthropists, I charge you to frown upon such practices, and take a bold stand against them. Else see to it that in the end you are not held to a strict account for the knowledge you have this day gained."

We heartily commend this work for elementary instruction. We can mention larger, more thorough and exhaustive books, but we know of none more useful or more reliable. J. C. R.

Diseases of the Bladder and Urethra in Women. By ALEXANDER J. C. SKENE, M. D., Professor of Diseases of Women in the Long Island College Hospital, etc. New York: William Wood and Co., Great Jones Street.

Dr. Skene has laid the American profession under obligations by preparing this work. He has entered a field almost unoccupied, at least so far as works in English are concerned. He not only has diligently collected knowledge from others, but has also made important contributions himself to the pathology, diagnosis, and therapeutics of the disorders of which the book treats. There are few practitioners who do not meet every month or week with troublesome cases of urethral or of vesical disease in women; and they will find in this volume a treasure-house of valuable information.

Having said this much in commendation of the book, and without attempting any analytical review of it, we have a word or two of criticism. The *form* is objectionable. Why it should be given the profession as lectures, with occasional colloquial and inelegant expressions, instead of a series of chapters, we can not imagine. Then, too, the *quantity* of the work is not to be commended. Too much space is given to the consideration of matters of anatomy and physiology which practitioners ought to have already learned, and then there is a classification of diseases sometimes painfully minute, or again purely arbitrary, *e. g.*,—what will western and southern practitioners think of the existence of malarial neuroses of the bladder? Will they not attribute the symptoms claimed by Dr. Skene for these disorders, to transient derangements of urinary secretion, doubting if not denying such neuroses? We sincerely believe the practical portion of the book could be placed in much less space than in three hundred and fifty pages.

Again, there are frequent evidences of careless proof-reading, and this is shown not merely in misspelled words and syntactic errors, but especially in the use of capitals where they ought not to be. Illustrative of the last fault take these two sentences found on p. 268:—"From the time of her marriage she began to suffer from painful menstruation and Uterine Leucorrhœa." "She had an Anteflexion of the Uterus and Cervical Endometritis." In the first sentence painful menstruation is quite as much entitled to capitals as Uterine Leucorrhœa, but of course neither should have them. In the second sentence, of ten words, there are five capitals, four more than proper.

The book has at least occasional rhetorical faults. The following is a remarkable sentence, found on p. 251:—"Joints of tape-worm, the Ascaris Lumbricoides and the thread or seat-worms have also been found here, entering either through a fistulous opening existing between the bladder and intestine, or by crawling in through the urethra." How the joints of a tapeworm could crawl we do not understand. Why not, too, simply say a vesico-intestinal fistula instead of "a fistulous opening existing between the bladder and intestine," using three words instead of nine! And why not omit "by crawling in" in the last clause of the sentence! No one could possibly imagine that worms would either jump, trot, gallop, pace, swim or fly in. Probably the book could be diminished one-third by omitting unnecessary words, and replacing all periphrases by direct expressions.

We know we have been pointing out minor faults, minor especially in comparison with the great value of the information and instruction given by the book; but still they are faults—faults which, if they do not corrupt public taste in the profession, at least do not improve it. The book is a good one, invaluable indeed, but we believe it can be made much better: just criticism is a duty alike to the author and to the profession.

The National Dispensatory—Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, including those recognized in the Pharmacopœias of the United States and Great Britain. By ALFRED STILLÉ, M. D., LL. D., Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania; and JOHN M. MAISCH, Ph. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. With two hundred and one illustrations. Philadelphia: Henry C. Lea. 1879.

We have no space for a review of a book of more than sixteen hundred pages. Nevertheless we must say a few words of the character and scope of this work. The names of its authors, Dr. Alfred Stillé, one of the most eminent of living physicians and medical teachers, and Professor Maisch, almost equally as well known to druggists and pharmacists as that of Dr. Stillé is to doctors, furnish ample guarantee of scientific accuracy, of thoroughness and of learning.

Convenience of reference is secured by an alphabetical arrangement of subjects. Detailed botanical descriptions, which not one doctor in ten could understand, and not one in a hundred would care for, are omitted. "With regard to Pharmacodynamics, there is presented, for the first time in a Dispensatory, a succinct account of the physiological action of medicines. The results of experiments are stated as clearly as possible, and occasionally in the theoretical language of the day; but, as a rule, terms have been employed whose meaning is not likely to become obsolete or unintelligible. Whenever it seemed possible, an attempt to apply the results of physiological experiments to therapeutical uses has been made; for although the two fields of inquiry may not be so organically connected as to render the former a guide to the latter, it is, nevertheless, true that a scientific explanation of the curative powers of medicines must be sought in the results of their experimental operations upon the animal functions."

A therapeutical index, a novelty in dispensatories, makes reference on the part of the doctor very easy. The work is a storehouse of invaluable knowledge, and the physician's library can hardly be complete without it.

Hints in the Obstetric Procedure. By WM. B. ATKINSON, A. M., M. D., Physician to the Department of Obstetrics and Diseases of Women, Howard Hospital, Philadelphia; Lecturer on Diseases of Children, Jefferson Medical College. Philadelphia: D. G. Brinton.

Dr. Atkinson seems to have studied the best obstetric authors diligently and discreetly, and from their extensive writings drawn lessons of wisdom and instructions of value for two classes of practitioners. The young man without obstetric experience will find in these hints a reminder of many good points remembered—perhaps only dimly—from his general studies, and the mixed jumble of his college instruction. It will prove a real light and a consolation to him to find in these few pages an intelligent summing up of what he is to do when called to a case of labor. Also it will discover to him one recess or more in his mind where the illumination of obstetric knowledge has not been complete or has faded, and he can at once resort to some suitable treatise and enlighten the dark corners.

Likewise certain practitioners who have had no inconsiderable experience and been years in gaining it, but who have not kept abreast with advancing thought and polemic literature in obstetric channels, will find themselves refreshed and enlightened by a perusal of Dr. Atkinson's Hints.

For the purposes indicated the book is well adapted and will do good service, and for the thoroughly posted, the leaders in obstetric science, it was not written. J. F. H.

Paresis of the Sympathetic Centers from Over-Excitation by High Solar Heat, long continued and suddenly withdrawn, etc. So-called Malaria: its Etiology, Pathogenesis, Pathology and Treatment. By CHARLES T. REBER, M. D. St. Louis: George O. Rumbold and Co. 1879.

The scope and tenor of this little volume may be understood from this quotation, found at the end of Chapter VIII:

"It appears unnecessary to multiply words on these points.

"1. That the temperature of the body is governed by the sympathetic nerve-centers as a temperature center.

"2. That in order to the healthy performance of this function, these nerve-centers must possess a certain degree of tone (potential energy).

"3. That long-continued high atmospheric temperature, especially when saturated with aqueous vapor, produces over-excitation of those heat-governing nerve-centers, resulting in a depression of their normal potential energy.

"4. That the abnormal state of those centers is the cause of all the diseases for a long time past known by the term malarial or malarious diseases."

If any one accepts all this on its mere announcement, very well; but if one does not, it is not worth while to search Dr. Reber's pages for proof of its truth, for the demonstration is not in his book. His therapeutic measures are those in common use, but he attempts to twist the *rationale* of their operation to accord with the propositions quoted above. Taken altogether the book is not bad enough to do any mischief, nor good enough for a busy doctor to occupy time in reading it.

J. F. H.

Clinic of the Month.

THE LOCAL TREATMENT OF INFANT DYSENTERY.—The local treatment requires the use of enemata. Their indications vary. They are to evacuate the bowels, or to reduce the irritability of the diseased intestine, or to accomplish an actual cure. These indications can not always be fulfilled separately; sometimes two, sometimes all three can be fulfilled at the same time. The nature and quantity and the temperature of the liquid to be injected depend in part on the end aimed at, in part on the irritability of the individual intestine. Sometimes the bowel objects to the introduction of small amounts; sometimes, however, large quantities are tolerated very easily indeed. To introduce small amounts, the selection of the syringe is a matter of indifference. To inject large quantities, however, undue pressure and local irritation must be avoided. Thus the fountain syringe alone will answer; it ought to hang but a trifle above the level of the anus, say from six to twenty inches. The temperature of the liquid is not always a matter of great importance. Some recommend the injections to be ice-cold, some, however, tepid; both are frequently recommended as panaceas. But the practitioner will soon ascertain that some bear and require the one, some the other, some indeed very hot ones.

In my experience, for the large majority of patients tepid injections answered best. Not seldom is the intestine in such a condition of irritation that even small quantities of a very cold fluid are expelled at once. And again, there are cases in which enormous amounts of either cold or warm water are readily received. To accomplish the purpose of evacuating the bowel, plain water will often suffice, but one per cent. solutions of salt in water will usually prove more acceptable.

Additions of bitartrate of potassa, or castor-oil, have proved so uncomfortable in my hands that I have discarded them long ago. However, when the secretion of mucus on the rectal mucous membrane was very large, one or two per cent. solutions of bicarbonate of soda answered very well indeed. For the purpose of clearing the intestines, either of feces or the morbid products, a single enema is insufficient. It ought to be repeated several times daily. When much mucus is secreted and tenesmus intense, it may be applied after every evacuation. In many cases the substitution of flaxseed tea or mucilage of gum acacia will prove advantageous. I had to continue them for weeks for both their evacuating and alleviating effect. When, however, the latter effect alone is aimed at, small quantities will usually suffice. An ounce or two of thin mucilage, or starch-water, or flaxseed tea, with tincture of opium, or better extract of opium, prove very comforting. Glycerine in water has been recommended for the same purpose. The former alone, or but slightly diluted, irritates, nay cauterizes. It will require close judgment and individual experience to ascertain the degree of dilution.

When a local curative effect is aimed at, injections of small quantities will be found deficient. As the local lesions are often extensive, the amount to be injected must be pretty large. Almost always astringents are required. Sulphate of zinc, of alumina, subacetate of lead, nitrate of silver, tannin, chlorate of potassa, ergotin, salicylic and carbolic acids, and creasote have been recommended. Of the more common astringents I prefer alumina or tannin in one per cent. solutions. Creasote answered well in solutions of one half of a per cent. Salicylic acid resulted more frequently in pain than in benefit. Carbolic acid in solutions of one half of a per cent. has proved very beneficial, but I have learned long ago to be very careful in regard to its administration when I observed a case of poisoning with that substance. A young man, suffering from chronic dysentery, was to be treated with injections of carbolic acid in a one per cent. solution. As it was expected that but a limited quantity would be tolerated before expulsion, no amount was specified. The intestine, however, being in a paralytic condition, received enormous quantities, until finally ten drachms (40.0) of crystallized carbolic acid disappeared in his bowels. That want of caution came near destroying the patient.

Injections of nitrate of silver may prove very useful in cases not quite acute. Before the solutions of a quarter of a per cent., or one, or two per cent. are injected, the intestine ought to be washed out with warm water without salt. After the injection has been made, it ought to be neutralized with a solution of chloride of sodium; it is still better to wash the anus and the portion of the rectum within easy reach with that solution before the medicinal injection be made. For even the mildest solutions are liable to give rise to intense tenesmus, when no such care has been taken.

In chronic cases, where the ulcerations are but few, or in the lower portion of the bowels only, small quantities suffice. But more acute cases and extensive lesions require large injections, the patient being on his side, or in the knee-elbow position. In a number of cases, both mild and severe, where neither the usual astringents nor nitrate of silver appeared to answer, I have been very successful when resorting to injections of subnitrate of bismuth. The drug is mixed with six or ten times its amount of water; of this mixture from one to three ounces (30.0–100.0) are injected into the bowel which has been washed out previously, twice or three times daily. The success was satisfactory, though a large portion of the injected mixture was soon expelled. (A. Jacobi, M. D., in Amer. Jour. Obstetrics, July, 1879.)

THE SETON IN CHRONIC PATELLAR BURSITIS.—Dr. J. A. Austin, (Lancet, July 12,) writes:—There are two principal methods of treating the disease known as chronic patellar bursitis, or chronic housemaid's knee—viz., the *uncertain* and the *certain* method. Of the latter, one variety, I believe, consists in getting rid of the effusion in the bursal sac, and, by adopting measures for keeping the knee-joint extended, to prevent the influence of pressure, tension, or friction involved in the frequent act of flexion, which, I understand, are the great perpetuators of the mischief in these and similar cases. There is, however, another variety of the certain method, which, though it may be said by some that it is neither so elegant nor convenient as the former, is yet as expeditious as any, and certainly can not be surpassed for its certain and satisfactory results. I allude to the treatment by the seton. To enter into a few details. The seton, composed of a double silk thread moistened in weak carbolic oil, is conveniently passed through the same canula which draws off the fluid, and in certain circumstances, where the avoidance of pain is urgently required, the ether spray will be found a great boon. Too small a trocar is not to be selected, or the apertures will be apt to close up and obstruct the discharges. To have to enlarge them afterwards would be exceedingly disagreeable. A pad of lint, moistened also with carbolic oil, covered with gutta-percha tissue, and the whole secured by a few turns of a bandage, is both agreeable to the patient and helps to maintain the patency of the apertures. The seton should be drawn every morning, in order to present a fresh portion of it each time to the suppurating interior, and the pus encouraged to ooze out by frequent and gentle pressure with the fingers. In five or six days the seton may be withdrawn, and after five or six days more of rest the patient may be allowed to walk about. Should any congestion or weakness be left behind, it is effectually overcome by the local use of the cold douche. Iodine, blistering, pressure, and even simple tapping, are very uncertain remedies, and their employment in nearly every case is merely a source of additional annoyance to both the patient and the practitioner.

CHLORIDE OF SODIUM WITH CORROSIVE SUBLIMATE INJECTIONS IN SYPHILIS.—In the *Memorabilien*, July 9, 1879, Dr. G. Matthés speaks of the disadvantages of the hypodermic injection of a simple solution of corrosive sublimate in syphilis, on account of the abscesses and painful swelling which often follow. For two years, in Vienna, he has assisted at the Polyclinic of Dr. Henry Auspitz, and gives their experience in the use of corrosive sublimate in solution with common salt. Dr. Auspitz mixes the salt with the corrosive sublimate, and selects the buttocks as the best point of injection. There he inserts the needle of the syringe, penetrating the gluteus maximus, using a Pravaz's syringe-full of a solution every second day, after the following formula:

℞	Hydrarg. bichloridi, ...	grams	1.
	Sodii chloridi, ...	"	5.
	Aquæ distil., ...	"	100.

This solution is almost entirely painless, and Dr. M. has neither in Vienna, nor in thirty-five cases in private practice, seen any harm from its use. In the thirty-five cases, altogether he used about eight hundred and fifty injections, and never saw an abscess result, and the swelling after the injection was much less and disappeared a great deal sooner than in the use of the corrosive sublimate alone. The injection was only used every second day, so as not to cause salivation. Generally twenty to thirty injections were sufficient to effect a cure.

BLISTERING AS A REMEDY.—Dr. H. S. Anderson, in his Harveian Discourse, Edinburgh Medical Journal, June, 1879, speaks as follows of the efficacious use of blisters:

Another remedy, which I fear is somewhat unduly neglected also, is counter-irritation by means of blistering; and I think I have observed in some young practitioners an approach to something like terror when blistering is spoken of as a remedy that may frequently be used. Certainly, as regards children's diseases, there is more of this fear than there should be. It has frequently, for example, been my experience to see children, in consultation with a younger practitioner, when blistering in acute head affections had never been dreamed of. In mostly all acute inflammatory affections of the brain, tubercular or not, in children, I am strongly of opinion that after shaving the head the application of blistering fluid has a most rapid and satisfactory effect. Inflammatory attacks also of the peritoneum and chest in children are often controlled by blistering, although the size of the vesicatory and the length of time applied must be carefully considered. And in the rheumatic affections of the joints in adults, repeated blistering has often the happiest results. For many chronic conditions, also, counter-irritation has always held a high place in my list of remedies. In chronic tubercular affections of both chest and abdomen I think occasional and repeated blistering is frequently beneficial, and also in chronic and obscure head and other affections of the nervous system. For example, a blister over the roots of the nerves in herpes zoster often relieves the neuralgic pain so generally present, and often so difficult to get rid of. In diphtheritic paralysis, also, blistering the nape of the neck, and even down the spine, often expedites cure in a wonderful way. In the uterine or ovarian pain so often complained of in the left side, there is no better remedy sometimes than a succession of fly-blisters, and the tenderness of spinal irritation is frequently relieved, if not got rid of, by the same means. In chronic effusions the use of blisters is still fully acknowledged, and do not, therefore, call for special mention.

THE VARIOUS THERAPEUTIC USES OF CALCIUM PHOSPHATE. While phosphate of lime in an insoluble state is not absorbed in its passage through the alimentary tract, when dissolved in lactic acid, under the form of a lacto-phosphate, it stimulates nutrition in both adults and infants. In the latter the bodily weight regularly and progressively increases. In the case of the bones, lacto-phosphate of lime increases their hardness and favors consolidation in cases of fracture. In rickets, M. Dusart found in every case, in which the diet, though sufficient in quantity, was unsuited to the digestive organs, the addition of lacto-phosphate of lime caused rapid improvement. The observations of Dr. Paquet in Parisian hospitals, in cases of wounds and fractures, confirms its usefulness where there are deep-seated disturbances of nutrition; among the results following the use of the remedy being almost uniformly a shortening of the period required for consolidation.

Among pregnant women, easy gestation, constant appetite, a well developed and vigorous child, a rich and abundant milk supply, are the results as observed by M. Dusart accompanying the employment of calcium phosphate in this form.

Lehman's experiments on young animals with food deficient in phosphates show sufficiently well the injury which may be inflicted thereby upon the development of all their tissues, but especially the osseous; while the superior value of lime phosphates, as compared with potassium phosphates, was likewise established. (New Remedies.)

SUCCESSFUL REDUCTION OF A STRANGULATED CONGENITAL INGUINAL HERNIA.—W. G., born April 10th, was the subject of double congenital inguinal hernia. For a month the child enjoyed good health, and all its functions were properly performed. On May 15th, however, the left hernia showed symptoms of strangulation. Twenty-four hours after the child was taken ill, I was sent for, and found the scrotum enlarged and bulging on both sides—the penis being reduced to a mere tubercle; the abdomen distended, highly tympanitic, and painful on pressure; the pulse weak and quick; the bowels constipated, the tongue furred, stercoraceous vomiting occurring every few minutes, and the child crying in a faint exhausted manner; in short, presenting every appearance of being *in extremis.* The right hernia was soft and easily reduced; the left was firm, lumpy, and bright on the surface, and refused, after a quarter of an hour's cautious taxis, to yield in the slightest. I then had recourse to enemata of soap and warm water, and succeeded in bringing away some fetid, brown, mucoid substance from the lower bowel; still the hernia refused to go up. I next got the unfortunate little patient into a hot bath, and fomented the part well with a soft sponge for a quarter of an hour, when, after a few minutes' careful manipulation, the bowel gradually ascended from the scrotum. Keeping my thumbs over each inguinal canal whilst the child was being removed from the bath, I applied pads and a figure-of-eight bandage in the usual manner, the scrotum at this time being quite small and corrugated. Since then the vomiting has ceased, the bowels have been regularly moved, the abdomen has diminished in size, food has been regularly taken, and the child restored to its usual health. (Dr. J. T. Burgess, Lancet, July 12, 1879.)

LYMPHADENOMA OF THE TESTICLE.—Prof. Charles Monod, and Dr. Terillon, conclude an interesting paper upon this subject (*Archives Génèrales de Médecine*, July) as follows:

1. Lymphadenoma or tumor constituted by a tissue of new formation, comparable to that of the lymphatic ganglions, may be developed in the testicle.
2. It constitutes a variety of *sarcocele*, anatomically perfectly distinct, and a differential diagnosis in the living possible.
3. It seems to attack by preference the gland itself, sparing the epididymis.
4. The entire gland is affected in the very commencement. The degeneration seems to begin in the intertubular cellular tissue, and secondarily to gain the walls of the seminiferous tubes, which themselves disappear at length in proportion as the neoplastic tissue extends.
5. Lymphadenoma may affect both testicles either successively or simultaneously: this fact seems peculiar to this neoplasm.
6. The generalization is remarkably rapid. Frequent in the viscera and in the bones, it may also be manifest in the cutaneous and in the subcutaneous tissues, at a great distance from the original focus of the disease. This characteristic, as well as the one previously mentioned, is a great help to diagnosis.
7. The affection of the economy may exist for a comparatively long time, without inducing any appreciable cachexia.
8. Lymphadenoma of the testicle does not appear to be accompanied by leukemia.
9. The prognosis is unfavorable, and so far all surgical intervention has been useless.

CYSTIC TUMOR OF THE PAROVARIUM—REMOVAL BY EXCISION. Jane B., aged thirty, married eleven years, two children. Increase in size very gradual, and dating from a miscarriage five years ago; more on left than right side; no pain; regular menstruation. Pinched appearance, and usual physical signs of ovarian tumor. Fluctuation very distinct through thin walls. No superficial adhesions; free from pain. Uterus free and normal in size. Girth round umbilicus forty-one inches; after operation twenty-nine inches. On first of May abdomen was opened antiseptically; both ovaries found healthy. A large cyst, free from adhesions, arising from left broad ligament, tapped and emptied, containing about one gallon of clear fluid. Had a fairly long slender pedicle, which was transfixed and tied with carbolized silk in two portions, and dropped back into abdominal cavity. Wound was closed with silk sutures, dressed with dry carbolized gauze and tow, without protective, and left untouched for twelve days. It was then closed, healing without suppuration. Acute hysteria, with tenderness and congestion of ovaries, fourth and fifth day after operation. Subacute cystitis, probably from introduction of septic matter on the catheter, thirteenth to eighteenth days, yielding readily to twenty-grain doses of sulphocarbolate of soda. Well and about in twenty two days.

Cysts attaining a large size developing from the parovarium are rare. "They are not generally pedunculated, but spring from the broad ligament as sessile growths distinct from the ovary." (Ziemssen.) And it is in this that they are of much surgical interest for—avoiding the risk of the clamp or multiple ligature as applied to a thick short pedicle—Miner's operation of enucleation can easily be performed. To quote Schroeder:—"Miner starts from the opinion that the vessels are spread out only over the superficial surface of the cyst, and that none but capillary vessels enter the true cyst-wall. For this reason he goes deep down where the pedicle spreads over the cyst-wall, and enucleates the tumor by separating the thin vascular extension of the pedicle from the surface of the cyst." (Dr. Langley Browne, Lancet, July 19, 1879.)

Notes and Queries.

FEMALE DOCTORS.—In the Louisville Medical News, July, Dr. Lunsford P. Yandell, now in London, thus discourses of female doctors, in one of his very interesting letters:

I have met two fine English women who have lately returned from their medical studies in France, and at an early day will take their degrees. I see no reason, barring human prejudice, why they should not succeed in the profession they have chosen. Having strong minds, rare educations, high professional acquirements, fine presence, and all the ambition and energy that could be desired, what hinders them? For my part, I am strongly inclined to allow—nay, I am in favor of allowing—the fillies an equal chance with the colts in the race for the medical cup and purse. There has been much talk about the indecency of female students witnessing along with males certain operations and examinations; and I confess that I have been shocked at seeing young women with young men looking on at certain surgical clinics in the male wards of the French hospitals. But I was none the less shocked the other day by seeing young artists of both sexes, side by side, copying in crayon nude male statues in the British Museum. If female artists in mixed company may draw and sculpture men in marble who have not on them the Garden-of-Eden garment (a fig-leaf), or the Georgia major's costume (a shirt-collar and a pair of spurs), then where is the harm in the sons and daughters of medical science looking together on naked sick men? The marble men are certainly the more attractive.

DR. CORNETT ON YELLOW FEVER.—The Courier, Madison, Ind., July 10, contains a long contribution upon yellow fever by that venerable and venerated physician, so well known by the profession of Indiana at least, Dr. W. T. S. Cornett. Dr. Cornett concludes his paper as follows:

"I have now, I think, presented a sufficiency of the past history of this disease, together with the opinions of eminent men and learned societies, to convince the unprejudiced that it is not indigenous to our country; but that it is an imported disease and spreads by contagion. Consequently, there is but one method of preventing its occurrence among us, namely, quarantine—rigidly enforced against all places where the disease is known to exist. When it eludes quarantine and makes its appearance, then isolation and segregation should be promptly resorted to. There should be no deception practiced upon the people in reference to its existence. The flag of warning should be as promptly displayed as if it were small-pox."

DR. BRODIE'S DILEMMA.—The following extract from the Michigan Medical News, July 10, shows what it is:

"The London correspondent of the American Practitioner asks, 'Where would Kentucky be without whisky?' And answers, 'Not in the van of a great republic, but in the static condition of teetotal races.' Kentucky is a great state, but it is a question whether her men, who imbibe Bourbon, are more famous than her horses, which eat blue grass."

A REASONABLE DOUBT.—We copy from one of our exchanges the following prescription, "which is recommended by Dr. Palmer." But what Dr. Palmer? Not A. B. of Ann Arbor, nor E. L. of Louisville, nor C. D. of Cincinnati, for these are all educated men, and by no conceivable possibility could any one of them write such a prescription as this:

℞ Aloes		
Ex. thyoscyami	āā ʒ j	4.00
Ext. nucis vomiciæ (alcoholic)	gr. xij	72
Ipecacuannhæ	gr. vj	36

M. Ft. pil. xxx. Take one pill each night on going to bed.

An Honor to Professor Byford.—In the Chicago correspondence of the Boston Medical and Surgical Journal, July 10, we find the following:—"Prof. Byford has recently received an official invitation to attend the forthcoming annual meeting of the British Medical Association, and to deliver an address before that body. The Association meets in the early part of August at Cork. Prof. Byford will attend."

Now we are willing to wager a dollar against a bushel of Chicago wheat that Dr. Byford was not invited to address the British Medical Association, but simply invited to attend its meeting, and to present a contribution to the "Section C—Obstetric Medicine," just as dozens of other American doctors had invitations to the Association, and to present contributions to that or some other of the "Sections;" Dr. Sayre, for example, presents a paper to the Section on Surgery.

Dr. Weatherly's Horse.—In the Advertiser and Mail, Montgomery, Ala., an interesting account is given of the presentation of a horse (which was not a horse but a mare), from the blue grass region of Kentucky, to Dr. Weatherly, a physician of Montgomery, so widely known, so highly esteemed, by Dr. William O. Baldwin, whom the profession know if possible still better. Really, as we read the column and a half of speeches—one in presenting, the other in receiving the gift—speeches of course that were appropriate and graceful, we can not but wonder what amount of rhetoric would have been necessary in case a pair of horses had been given!

What is Success?—Some time ago we read a paper in one of our exchanges, having as its title "a successful case" of a certain disease. Greatly to our disgust at the extraordinary use of language, we found that the patient recovered! Really a disease usually fatal, that in an individual instance terminates in recovery, does not succeed very much in that case,—the fact is as a disease it ought to be set down as a failure.

On the Influence of Brain Work on the Development of the Cranium and the Brain.—(*Gaz. des Hôpitaux*, March 13, p. 243.)—MM. Lacassagne and Cliquet have examined, by the aid of the *Conformateur*, the heads of one hundred and ninety doctors of medicine, one hundred and thirty-three rudimentarily educated, ninety illiterate and ninety-one prisoner soldiers, with the following results:

		Soldiers.		
Diameters.	Doctors.	Educated.	Uneducated.	Prisoners.
Longitudinal . .	85.29	81.97	79.13	81.10
Frontal . . .	48.91	43.65	42.35	41.12
Parietal . . .	52.58	49.66	50.27	49.90

There is thus a considerable difference in favor of the doctors, and this is especially marked in the frontal measurements. Moreover, the two sides of the head are not symmetrical—in the educated the frontal region is more developed to the left; in the uneducated the occipital region is more developed to the right. The head is larger (more developed), in the case of the educated than in those of inactive intelligence. Among the educated the frontal region is more developed in proportion than the occipital—and, if the difference is greater in the occipital, it is very trifling; while among the illiterate it is considerable. (Brain, July, 1879.)

To Subscribers—*Publishers' Notice.*—Those who are indebted for the *American Practitioner* are earnestly requested to remit at once. The importance of this notice it is hoped will be appreciated by them, as a prompt compliance with the request will be by the publishers.

THE AMERICAN PRACTITIONER.

SEPTEMBER, 1879.

> Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

GASTROTOMY FOR RELIEF OF INTERNAL STRANGULATION OF THE BOWEL—EXTENSIVE SLOUGHING OF THE INTESTINE—RECOVERY.*

By J. N McCORMACK, M. D.

Formerly Resident Physician to the Cincinnati Hospital, Corresponding Secretary of the Kentucky State Medical Society, Etc.

I was called May 15, 1878, in consultation with Dr. A. C. Wright, to see R. W. S., an intelligent, moderately well developed American farmer, aged thirty-four years, who had been suffering for twenty-four hours from acute obstruction of the bowels.

Thirteen years ago, after returning from a day's hunt, he reached down from a high door for a fowling-piece, and catching the hammer of the gun on a step, discharged the full load of shot through the penis and right testicle into the region of the pubic bone on the right side. The larger quantity of the charge passed outside of that bone, and ranging upward buried itself in the muscular tissue in the right side of the hypogastric and the right inguinal regions. After several days the remains of the right testicle were removed, and later a plastic operation was performed for the cure of a fistulous opening in the urethra. He made a slow recovery, without any indication of peritonitis, and enjoyed good health until three years ago, when he began to have occasional attacks of "colicky pains" in the right inguinal region, attended by constipation of the bowels, and usually by a well marked globular swelling in the affected region, which hitherto had been relieved by the administration of a brisk cathartic, warm applications and mild kneading externally. The intumescence had always disappeared with a distinct gurgling sound, followed by an action from the bowels and immediate relief. These attacks had become more frequent and severe in the last few months, and for the last ten days the patient had suffered almost constantly from an aching in the bowels.

---

* Read before the Kentucky State Medical Society in 1879.

The last attack came on twenty-four hours before the time of my visit. Dr. Wright was called in, and found the patient in much pain, vomiting frequently, and with a distinct firm tumor which, except that it was hardly so prominent and was situated higher up, had much the appearance and feel of an inguinal hernia. Under warm water injections and soothing applications externally, the larger part of the swelling disappeared, but without relieving the vomiting and pain. An anodyne gave him rest during the night.

When I saw him the pulse was 80, temperature 98.5°; he had vomited frequently during the morning. Although active purgatives had been given and enemata often used, he had had no motion from the bowels. The pain was not severe, although there was excessive tenderness over the affected region. The patient was placed under the influence of chloroform and a careful examination made, externally and through the rectum, without eliciting any additional information. Inversion, injections, mild purgatives and soothing applications were faithfully tried without benefit. In the afternoon the vomiting ceased, and he passed a night of comparative comfort; with the morning came a return of the vomiting. There was no apparent change in the swelling and tenderness over the abdomen. Pulse 90; temperature 99°. Copious warm injections, through a tube introduced into the colon, were again tried, bringing away no fecal matter at any time. The afternoon again brought comfort, but late in the evening stercoraceous vomiting set in, and continued through the night. On the following morning the pulse was 100, temperature 99°; countenance anxious and expressive of great suffering and prostration; the vomiting was frequent and very offensive. Except that the swelling was not so hard, its condition was unchanged.

The patient was placed under the influence of chloroform, and assisted by Drs. Wright and Porter, I proceeded to operate by making an incision five inches long, beginning an inch below the umbilicus and extending downward in the median line. After exposing the peritoneum and stopping the oozing of blood, that membrane was carefully slit up with a probe-pointed bistoury. Many small shot were found in the muscular and subperitoneal tissue. The intestines were agglutinated together and to the abdominal wall by an abundant recent lymph, and the small intestine lying in the line of the incision was of a dull darkish gray color, and being deprived of the support of the abdominal wall, ruptured from the slight pressure exercised by its contents. This coil was gently drawn out at the wound, and a large quantity of fecal matter discharged through it. After breaking down the recent adhesions on the right side a strong old band of false membrane was found, passing across and firmly constricting the lower portion of the ileum and the ascending colon. This was divided, the gangrenous portion of ileum placed in apposition with the external wound, which was then brought together in the usual way, an opening being left at the lower angle of the wound for the discharge of feculant matter and for drainage. The patient rallied well after the operation, and under the influence of an anodyne passed a good night.

Second day.—Countenance bright and hopeful; no vomiting since the operation, and very little pain; pulse 96, temp. 98°; fecal matter wells up along the whole line of the incision;

antiseptic and disinfectant dressing kept constantly applied to the wound; the tongue is almost clean, and the appetite is good.

Fourth day.—Has rested well; pulse and temperature normal; takes all the liquid diet that is allowed him with avidity. The edges of the wound are beginning to gape, and the fecal matter passes freely not only along the line of the incision, but also through the apertures made by the sutures. The plaster renders no support to the sutures, as it is loosened as soon as applied. Abdominal cavity frequently and carefully washed out with tepid carbolic solution.

Eighth day.—Discharge very abundant and offensive; general condition good. I removed the sutures, and finding the bowel lying in the wound to be puffy, black and offensive, I removed about six inches of it with the scissors. The edges of the wound were now brought into apposition with the quilled suture, and supported by an abdominal corset, a large opening being left at the lower angle for drainage.

Tenth day.—About twelve inches of intestine, with mesentery and some fat attached, came away through the opening this morning. This portion of intestine was in a better state of preservation, especially the central part of it, than that removed two days ago, and its structure was distinctly recognizable. The discharge from the bowel indicates a pretty good digestion, and this is confirmed by the increase in the flesh and strength of the patient.

Twenty-fifth day.—The wound has healed by granulations from the ends, leaving the artificial anus in the center. A catheter passed into the opening goes directly into the right inguinal, where the ileum no doubt terminates.

Sixtieth day.—The patient has been able to walk about the house for the past three weeks, and in the last few days has been riding on horseback. The discharge from the artificial anus is involuntary but not continuous—four to six hours often intervening between the passages. Mr. Martin, of this city, has constructed for me a hard firm pad, to which is attached an adjustable gum-bag, which entirely protects the person and clothing from the discharge, and gives great comfort.

Seventy-fifth day.—Ten days ago the patient felt a desire to have an action from the bowels *per viam naturalis*, and after taking an enema passed off a free, healthy-looking stool, and two days later he had two other good passages in the same way. Ten days later and nothing more passed by the rectum; but the patient finds that when he takes an injection by the wound it frequently passes off by the rectum, and *vice versa.*

One year has now elapsed since the operation was performed, and my patient's condition is exceedingly gratifying. He travels in his carriage or on horseback without difficulty, and is able to engage in light work. Sometimes for ten days together he has regular actions from the bowels in the natural way, little or nothing passing through the artificial opening; and then probably for an equal length of time nothing is passed by the rectum. The most reasonable explanation for this condition of things, to my mind, is that after the operation the mass of gangrenous bowel was encysted as it were by organizable material, and when it was thrown off a cavity was left, into which the two ends of the bowel opened, and from which there was also a communication with the orifice in the abdomen. Whether or not the communication will ever become sufficiently and reliably free for all the fecal matter to pass into the colon, and to allow the artificial opening to be closed, is a question time alone can determine; but the probabilities are that it will not.

Such is the brief history of a case that has much in it of practical interest, chiefly in the result, as bearing on the question of the propriety of surgical interference in this class of cases. That they are usually allowed to die, after the use of the "conventional cathartics, enemas," etc., and that they are not of infrequent occurrence, an examination of the literature of the subject shows but too plainly.

After speaking at length of the ordinary treatment, Gross concludes by saying:—"As to the propriety of enterotomy in such cases, the question presents great difficulties. Of these the most important are, the nature of the disease, and the fact that the division of the peritoneum is always attended with extreme risk to life, especially when it is severely congested, if not actually inflamed. . . . In two instances in which, after mature consultation with eminent physicians, interference was deemed advisable, I signally failed in conferring the slightest benefit by these procedures, one patient dying at the end of four hours and the other in less than thirty-six. I have myself no taste for this kind of interference. In internal strangulation, depending upon intussusception, a twist, or the interception of the bowel by an aperture in the omentum, the diagnosis is so uncertain that the proper time is usually allowed to pass before an operation is agreed upon, and when, at length, it is performed, the case must, almost of necessity, speedily terminate fatally."

One is struck at the similarity of this teaching to that of the older authors, in regard to ovariotomy and the Cesarean section. Phillips is certainly sufficiently conservative in saying that "the operation is justifiable when three or four days have passed without any relief from ordinary means, constipation being complete, and vomiting of fecal matter continuing." Erichsen, writing since the disappearance of the unfounded prejudice against opening the peritoneal cavity, says:—"If, however, by attention to any of the points which have been pretty fully adverted to, it can be satisfactorily made out that there is an internal strangulation, and more especially if the intumescence occasioned by it can be felt, it will evidently be the duty of the surgeon to give the patient his only chance by the division of the stricture."

That the mortality following the operation has been high, is as might be expected from the nature of the trouble it is designed to relieve; but that death is generally due to the destructive changes that take place while we are "waiting for something to turn up," and not to the operation itself, and that the inflammation of the peritoneum will not only not increase but positively diminish, when the strangulation which caused it is removed, is clear to my own mind. Of fifty-seven cases collected by Ashhurst, one by Marsh, of London, three months ago, and the one now reported, making fifty-nine in all, thirteen recovered. When it is remembered that in all the operation was resorted to only after extreme delay, and that the thirteen recoveries had the patients not been operated on, would certainly have died, the result is by no means discouraging.

My thanks are due Drs. Wright and Porter for assistance at the time of the operation, and for their hearty coöperation in the after-treatment.

Bowling Green, Ky.

FIVE CASES OF TRICHINA SPIRALIS, WITH REMARKS.

BY E. P. GILPIN, M. D.

On December 2, 1878, I was called in consultation with Dr. Becknell, to see five members of the family of Mr. George Brumbaugh, who had all been taken sick a week previously.

Case I. The mother, aged forty years, was affected suddenly by cramping in stomach and bowels—the pain being neuralgic in character and intermittent; there were also diarrhea and vomiting. On examination we found the tongue reddened and dry, with prominent papillæ. There was moderate fever, temperature 101° F., muscular soreness and distinct hyperesthesia.

Case II. A son, aged nineteen years, had only slight pain, no diarrhea and no vomiting, but was markedly edematous about the face, more especially the eyelids, and complained of a weak and sore condition of the muscles. The tongue was moist and furred. No fever.

Case III. A daughter, sixteen years old, was affected much like the mother, but a majority of the symptoms were more aggravated from the inception, and her condition appeared to be worse at the time of examination. The muscular soreness, however, was limited to but a few muscles. The temperature was 102° F.

Case IV. A daughter, eight years old, was affected quite similarly to Case II, but she had considerable diarrhea, and at the time of examination neither of these had been confined to bed.

Case V. A little girl of five years; had profuse diarrhea, some vomiting and moderate pain in abdomen; a very general edema; persistent and complete muscular soreness and hyperesthesia, with a temperature of 103° F. An apathetic condition was a noticeable feature of this case alone.

Remarks.—The skin in all the cases was dry; urine slightly decreased; the evacuations resembled milk and eggs beaten together, odor very offensive.

The general appearance of Case III was that of a typhoid fever patient in the third week, excepting that she had more strength. Hers was the only case that showed emaciation, and she was of slight build.

We agreed readily on the diagnosis, but not having a microscope at the time we were unable to verify our opinion. Two days later the cases passed from Dr. Becknell's care into the hands of an irregular, by whom they were treated during three weeks.

On the 23d of December I was called to take charge of these cases. The course of four of them had been an aggravated continuance of the symptoms already detailed; but the mother had died, at the end of the fourth week of her illness, with every appearance of lung fever, according to the nurse, who is an intelligent and observing lady. Case III had menstruated once during her illness.

The original diagnosis was reasserted, and a very unfavorable prognosis was given in Case V, which was verified twenty-four hours later, death occurring from a failure of action in the respiratory muscles. An autopsy was not allowed, but I obtained small pieces of muscular tissue from five widely separated muscles, and in each specimen, under the microscope, found large numbers of the trichina spiralis; in several specimens numbering twenty-five hundred to the square inch, or more than one hundred and fifty thousand to the cubic inch. These were in every position, from a perfect coil to a straight line.

Cases II and IV progressed favorably under treatment; their convalescence being marked by an increase of urine and perspiration, and a ravenous appetite. Neither now complain of any ill effects.

Case III, after a gradual emaciation and loss of strength, a total lack of appetite and a persistent diarrhea, which I was unable to control, died January 26, 1879, from inanition.

An autopsy was held twenty hours after death. There was extreme emaciation. The brain was not examined. The larynx and bronchi showed the effect of catarrh. The left lung was normal; the right showed moderate hypostatic congestion, and was adherent to the pleura throughout its whole extent. The adhesions were unlike those of a recent pleuritis, being dry, and although complete were easily broken. The heart was flabby, with slender fibrinous clots extending from the left ventricle. Fluid in pericardium was normal in amount and appearance. The stomach bore marked evidence of prolonged congestion, as did also the intestines throughout their whole extent; both were empty. The liver was slightly congested in one lobe only, being otherwise normal in appearance. The spleen was smaller, darker, and of firmer consistence than normal. The left kidney was considerably congested, and contained a small calculus in its pelvis. The bladder appeared unaffected, as did also the uterus and ovaries. There was no evidence of peritonitis.

Under the microscope, specimens of voluntary muscle from various parts showed from one hundred to five hundred trichinæ to the square inch; and each parasite was either coiled in its capsule or lying in the tissue adjacent to one, appearing as though it had been torn therefrom. The capsules were apparent to the naked eye, as small grayish-white specks. No trichinæ were found in the walls of stomach or bowels.

The treatment has been varied. During the first week, under the judicious care of Dr. Becknell, they received anthelmintics and laxatives, followed by a solution of glycerine, one part to three, together with a tonic and symptomatic course. Of the treatment during the following three weeks I know little, but understand that turpentine was freely administered to Case I. From that time on the treatment was mainly tonic and supportive, with anodynes, pepsin, etc., as needed, and nourishing food.

We were unsuccessful in our search for the source of the infection; and in the numerous specimens of pork brought to us for examination, we have thus far been unable to find any of the parasites.

To sum up:—My experience in these cases, so far as it goes, mostly tends to confirm previous conclusions, but there was one notable exception. Authorities speak of "profuse and persistent sweating" as one of the diagnostic symptoms; but in all these cases, on the contrary, *the skin was very dry* throughout the disease, becoming moist only as convalescence progressed.

If a narration of these cases should induce some of my fellow practitioners to re-read the literature of this subject, my object in reporting them will have been attained; for authorities all agree that an early diagnosis is of the first importance, as it is then only that we can hope to accomplish much by medication.

In regard to prophylaxis, I have found much satisfaction in reading the views of Heller, found in the third volume of Ziemssen's Cyclopædia; and in fact it would be hard to find a fuller résumé of the whole subject than is given by him in the volume cited.

Finally, treatment seemed to have but little permanent effect at any stage of the disease.

MILFORD, IND.

OBSERVATIONS ON ONE HUNDRED AND TWENTY-TWO CASES OF PNEUMONIA.*

BY OSCAR T. SCHULTZ, M. D.

I have not mentioned icterus among the complications, although a certain degree of jaundice was present in the larger part of my cases, for I regard more or less hyperemia of the liver as an almost constant symptom in croupous pneumonia. The so-called "bilious" pneumonia of authors I have never seen.

The duration of the disease was from one and a half to nine days, defervescence being established in about three-fourths of my cases between the fourth and the seventh day, in a large number on the eighth or ninth, and in a few in thirty to seventy-two hours; none were protracted beyond the ninth day.

Of the twenty-nine cases observed in children none died; of the twenty-nine adults up to forty years, two; and of the thirty-six beyond forty years, six; or dividing the latter into those from forty to sixty years, and into those beyond sixty years, I find two deaths among the twenty-five of the first, and four among the eleven of the second class. Of the eight cases terminating fatally six were by collapse, brought about by exhaustion of the heart. Exhaustion of the heart was also present in a greater or less degree in a majority of the cases that recovered, and in a number of these developed as early as the second or third day, a fatal result being only averted by a prompt resort to analeptics. Deducting two fatal cases, which came into my hands on the seventh and fifth day respectively, and in one of whom collapse was fully established at the time, while in the other it became so within twelve hours, my rate of mortality was 6.5 per cent.

According to my experience, the prognosis for young or adult non-cachectic cases must be considered good; for cachectic and aged subjects bad; the more so when they have, perhaps, passed through a bilious fever the autumn before. But there are two other factors which greatly influence our prognosis, and against which we country physicians have all more or less to contend; the one is the habit among our people of not calling in professional assistance until a disease has given evidence of not getting well of its own accord; the other the open condition of our sick-rooms, and their being heated by smoking fire-places. As for the first of these, experience justifies me in asserting that a pneumonia, coming under treatment the first twelve to twenty-four hours, can either be made to abort, by which I mean that the fever can be made to subside in about thirty to thirty-six hours after its commencement, and the resolution of the hepatization will take place without fever, or with perhaps a slight rise of temperature, about the fifth day; or if it can not be cut short in this way, that it can be made to run a short course, the fever terminating on the fifth, sixth, or at farthest seventh day. I might cite numerous examples to prove this fact. To illustrate the second, I will briefly report two cases, both of which came under observation during the present year.

---

* Continued from August No., page 97.

Case I. Woman, aged thirty-five years, consumptive, pregnant in ninth month; had passed through a croupous pneumonia in March, 1876, through an influenza in November, 1878. During the latter part of December bronchitis developed after exposure. January 2, 1879, she had a chill in the morning and another one in the evening. Examination on January 3 showed a croupous pneumonia of inferior lobe of right side; temperature 102°; $\frac{P}{R} = \frac{120}{42} = \frac{2.8}{1}$; threatening abortion. The disease progressed well until January 5, when temp. 99°, $\frac{P}{R} = \frac{112}{38} = \frac{2.7}{1}$. Took cold the night following while out of bed over chamber, the outdoor temperature being 16° to 20°; and on the morning of the sixth the balance of the right lung was involved. From this on the temperature was 101½° in the morning, and 105° in the evening. Signs of cardiac exhaustion became distinct during the night of the seventh. The dyspnea was considerable, and was aggravated into suffocative attacks by the smoke, which almost constantly filled the room. Stupor became developed by the ninth, and gradually passed into coma.

Case II. Woman, aged twenty-four years, of good constitution; had a chill on February 17, 1879, followed by cough and light but continued fever. On the morning of the twenty-first there was another chill. When seen four hours later the temperature was 99½°, the pulse 88–96; respiration easy, scarcely accelerated, but painful. There was coryza, cough, with scanty, viscid, non-sanguinolent sputum, and intense pain in left side. An examination gave negative results. There was frequent bilious vomiting, with pain and gurgling in right ileo-cecal fossa, but constipation, with violent pains in limbs. On the twenty-second, temp. 102°, $\frac{P}{R} = \frac{108}{40} = \frac{2.7}{1}$; a left croupous pneumonia of typhoid character was diagnosed. By the evening of the twenty-fifth the temperature was 99°; there was but little pain; mucous and submucous râles; sputum sanguinolent for the first time. During the raw and stormy night following, she was exposed to the draft from an insecure window; and on the morning of the twenty-sixth the temperature had risen to 101°, and there was stiffness over the whole body, with intense rheumatoid pains. On the morning of the twenty-seventh, extensive hepatization of the right lung was found, and the loose râles had disappeared from the left side. The temperature was 102°; $\frac{P}{R} = \frac{104}{40} = \frac{2.6}{1}$; great dyspnea, stupor with muttering delirium. The temperature remained at 102°; the pulse-respiration ratio varied from $\frac{2}{1}$ to $\frac{2.4}{1}$, with severe dyspnea and obtunded sensorium, until March 3, when the temperature was normal, $\frac{P}{R} = \frac{108}{52} = \frac{2}{1}$. By the next day the defervescence had remained complete, the pulse-respiration ratio was still $\frac{2.5}{1}$. Convalescence progressed favorably.

In the treatment of croupous pneumonia, I have aimed at these ends:—First, to limit the disease; second, to treat the disease itself; third, to treat the fever; fourth, to prevent and treat exhaustion of the heart; fifth, to manage disagreeable or dangerous symptoms.

1. When called during the first stage of the disease,—the stage of engorgement,—I am confident that I have been able to abort the fever in the sense indicated above, or at least to shorten the length of the disease and to make it pursue a milder course. To accomplish this purpose, I administer drop doses of fluid ext. aconiti radicis every hour, and twenty to thirty grains of the submuriate of mercury either at one dose

or in five grain doses, repeated every three hours. This treatment is persisted in until the twenty-fourth to the thirty-sixth hour after the chill. I do not claim that by this course of treatment I have been able to prevent hepatization,—at least to prevent an error in diagnosis. I have always noticed those cases which, though presenting all the general symptoms of incipient pneumonia—a chill, sudden and high rise of fever, pain in the side, cough with scanty and viscid expectoration—when subjected to the above treatment, did not at my next visit present the physical signs of pneumonia, as catarrhal fever.

2. Upon the principle that pneumonia is a general disease, with a local manifestation, and soon learning from experience that our cachectic constitutions would not tolerate debilitating remedial measures, I have avoided, in treating the disease, anything that would deteriorate the blood. In mild cases, without typhoid symptoms, and particularly in pleuro-pneumonia, I used the tincture of bryonia, in drop doses every two hours, throughout the whole stage of hepatization; and when resolution set in, combined this drug with expectorant doses of ipecac. Under this treatment these cases ran a remarkably favorable course. In cases where there was high fever, with but slight remissions, no diarrhea or diarrhea with grayish or greenish discharge, vomiting, considerable bronchial catarrh, in sthenic cases in adults and in almost all cases in children, I employed the submuriate of mercury in $\frac{1}{50}$ to $\frac{1}{100}$ grain doses every two hours. Where there was marked bronchial catarrh, and when in the stage of resolution the bronchi were crowded with mucus, I administered antimon. et potass. tartr., $\frac{1}{10}$ to $\frac{1}{12}$ of a grain every hour or two. That large class of asthenic cases, being so from the first, or becoming so in the course of the disease, I found to come to a prompt and happy termination under the use of phosphorus, given either as in Warner's compound pills of phosphorus, one pill every three hours; or where it was desirable to repeat the dose oftener, in the form of a tincture of phosphorus in drop doses, combined with $\frac{1}{6}$ to $\frac{1}{10}$ of a drop of fluid extr. nucis vomicæ.

3. Whenever the temperature did not rise above 102° during the first five or six days, and there seemed to be no imminent danger from cardiac exhaustion, the fever was left untreated, excepting that a nutritious diet and a small allowance of stimulants were ordered. This was the case in about one half the number of patients treated. When the temperature rose above 102° during the early part of the disease, or when the heart showed signs of failing, with a lower temperature, fifteen grains of quinia, in solution with muriatic acid, was given in the evening, and the dose was repeated if necessary in forty-eight hours. The effect of such a dose of quinia would invariably be a lowering of the temperature from one to four degrees. In no case was the fever cut short by a dose of quinia given before the fourth day of the disease, and in no case did a similar dose of cinchonidia sulph. at all affect the temperature. In all cases, where resolution had not set in by the fifth to seventh day with an almost normal temperature, a full dose of quinia was given on the evening of the fifth to seventh day, and the effect of such a dose was either to bring about a normal temperature with established resolution by the next morning, or at least an abatement of the temperature by the next morning; and after this the fever never rose again, but the temperature became normal on the morning following, being thirty-six to forty-eight hours after the administration of the quinia. I could bring numerous examples to prove these points, as I have watched this matter very closely, especially during the past year. When collapse had once become fairly developed, quinia seemed to me to hasten the fatal end.

4. The prevention and treatment of exhaustion of the heart forms an all-important part in the treatment of croupous pneumonia, especially with us, as very many of our patients seem to present, from one cause or other, structural degeneration of the heart. Of all the cases observed by me there were but very few that preserved the full hard pulse of pneumonia for any length of time. In very many cases the pulse was full, labored and slow—ninety to one hundred—for the first few days, and then suddenly, without any apparent cause, with

no higher rise of fever, became soft, wavy, one hundred and twenty to one hundred and forty, and perhaps intermitting. Another large proportion of my cases had this soft, rapid pulse, with unequal waves, from the first. Here prompt and energetic treatment is necessary, or the patient will go under. To prevent this cardiac fatigue I relied upon nourishing diet, eggs and milk and whisky, giving the latter in half ounce doses every two hours, in those cases where the fever is high and the previous history of the patients leads me to anticipate an early collapse. As soon as the heart showed signs of failing, I administered three to six grains of camphor every three to four hours until the danger was over. In cases in which the pulse was distinctly intermittent, digitalis proved valuable and was generally sufficient to cause this abnormal condition to disappear.

5. Under the treatment as delineated above, it has been but rarely necessary for me to treat symptoms. The pain in the side has been but rarely so severe or persistent as to make me order a turpentine stupe, a poultice, or a mustard-draft. Cupping, blistering and opium I have never been obliged to use for this purpose. The cough was but seldom violent enough for me to resort to narcotics; when it was very distressing, morphia or opium was freely used until it became easier. The vomiting which formed a prominent feature in the pneumonia of last February, yielded after twenty-four to forty-eight hours to mercury and ipecac. The sleeplessness, so troublesome in this disease and about which patients complain so much, I have always left untreated. In but few cases the diarrhea demanded special treatment; usually the alvine discharges became normal under the general treatment, and where this was not the case a few doses of opium with acetate of lead brought speedy relief. Collapse was treated by camphor, wine, whisky, and a large mustard-draft to the chest; but in no case, when it had once become fully established, have I been able to rescue the patient, although life was prolonged by these means for twenty-four to seventy-two hours. In general I have followed out the practice of treating symp-

toms in croupous pneumonia only where they actually seemed to exert an evil influence upon the course of the disease, or where by the great annoyance they give to the patient they undermine his power of resistance. If I anticipated no danger from either of these sources I have left them untreated, for it is my firm belief that too many of the measures adopted for this purpose tend to protract the disease.

Convalescence was usually prompt and uninterrupted. In some cases it became necessary to prescribe a tonic, in which case a pill of cinchonidia, iron, arsenic and gentian, brought good appetite and a speedy return of strength.

As evidence of the good results of my course of treatment, I append my mortality table, without which, as Juergensen correctly affirms, no report on pneumonia can claim any value.

A record of deaths in ninety-four cases of Croupous Pneumonia, observed from May, 1875, to May, 1879.

Classes by Years.	No. Cases.	No. Deaths.	Remarks.
0–16 years	29	......	
16–40 years	29	2	1. Man, aged twenty years, with typhoid pneumonia, came under observation on seventh day in complete collapse.
			2. Woman, aged thirty-five years, consumption, pregnant in ninth month; asthenic pneumonia of right side, lower lobe; on fourth day involvement of balance of same lung; uremic symptoms; death from exhaustion of heart on seventh day.
40–60 years	25	2	1. Man, aged forty-eight years, with typhoid pneumonia, right side; came under observation on fifth day in collapse.
			2. Man, aged thirty-eight years, terminal pneumonia in phthisis.
60–87 years	11	4	1. Woman, aged seventy-five years, asthenic pneumonia.
			2. Man, aged sixty-nine years; cachectic; had passed through a tedious bilious fever in autumn, in the November following typhoid pneumonia.
			3. Man, aged sixty years; chronic heart trouble; complete cyanosis on third day, death on fourth.
			4. Man, aged seventy-three years; pauper; came under observation on fifth day of the disease.
	94	8	

Mt. Vernon, Ind.

REMARKS ON ALCOHOLIC STIMULATION.

BY DANIEL H. KITCHEN, M. D.

Formerly Chief of Staff of the Hospitals, Blackwell's Island, New York; late Superintendent of the New York State Inebriate Asylum, etc.

From an experience of over ten years in the public hospitals and asylums of New York, and with the fact that alcoholic stimulation has been the producer of nine-tenths of all the disease under our care, we are led to make the following few remarks on the subject.

Intemperance is not a disease but a habit, and the irresistible desire for alcoholic stimulants is a self-engendered state, which, although it has become pathological, is only the result of the chronic toxical influence of alcohol.

If it can be proven that alcohol is not an efficient agent as a proximate alimentary principle, that it is not a heat-producing element when in the organism, and that it does not retard the constant wear and tear of all substance, its use is at once unnecessary and injurious. This abuse, when frequently enough repeated, becomes a habit; the habit a desire in which the craving has resulted from a self-imposed necessity.

Again, if it can be proven that alcohol does not possess the qualifications of an alimentary substance, a calorifacient, or a preserver of tissues, the irresistible desire can not but be an acquired state of the system—the result of changes in the cell structure of the organism. These changes, of course, constitute a pathological state, and as that can not, by the nature of the case, be traced to any congenital cause, it must be attributed to the toxical influence of alcohol.

The first question, therefore, to decide is,—Is alcohol an efficient alimentary element, and to what extent? There can be no doubt that this substance is capable of being absorbed, but whether it is consumed by the economy of the body, or whether it is discharged unchanged by the various excretory organs, has been a debatable subject. While Perrin, Lallemand and Duroy confidently stated that the imbibed alcohol is eliminated by the skin, lungs and kidneys in its original form, they failed to determine the quantity, and their test-method with chromic acid has been found by Anstie and others to be unreliable. It is conceded now as absolutely certain that, as shown by Anstie's final experiments, the largest portion of alcohol, if taken in quantities insufficient to produce intoxication, is consumed by the economy, and only the minor part eliminated unchanged; from which we may safely conclude that when imbibed in larger quantities, portions of it at least are retained in the body, and there changed by vito-chemical action.

This being the case, reference may now be made to the position which the consumed alcohol holds from an alimentary point of view. When we consult the authors already quoted, and review their experiments, the evidence seems to be that alcohol is consumed and destroyed in the system, and it may be inferred that this destruction is attended with oxidation. But as oxidation implies a liberation of force only, and does not furnish in this case a corresponding supply of material to work upon, the consumption of alcohol becomes simply an excitant for increased chemical changes within the body, and of the material already existing. Its value, therefore, is more therapeutic than physiological, or, if no asthenic disease exists, an incentive to extraordinary physiological cell function, which is only another name for a symptom of toxic influence.

Dr. Parkes and Count Wollowiez have instituted minute inquiries in this direction, and the former has expressed his conclusions in the following words:—"It appears unlikely, in the face of these chemical results, that alcohol can enable the body to perform more work on less food, though, by quickening a failing heart, it may enable work to be done which otherwise could not be. It may thus act like the spur in the side of a horse, *eliciting* force though not *supplying* it."

Those who oppose this conclusion and endeavor to sustain their opinion by referring to more ancient records, which speak of diminution of carbonic acid, urea, etc., might profitably glance over Dr. Frazer's admirable analysis of Parkes's reports, printed in the proceedings of the Royal Society. These reports embody results of experiments made on individuals to whom large and small quantities of alcohol and brandy had been administered, as well as water, for their sole beverage; and after notes were compared, conclusions were arrived at which were so substantial that the worthlessness of alcohol as an aliment may be taken as established. In regard to marked changes in the vital processes almost negative results were obtained. For instance, it was found that the use of alcohol did not markedly modify the weight of the body when not used too long in large quantities; that it never lessened and seldom increased the temperature of the body, even when large quantities were administered. It was, however, found that two ounces of alcohol per day, in divided doses, increased the appetite, but that four ounces diminished it, and large quantities destroyed it; that it increased the rapidity of the ventricular contractions of the heart, thereby producing dilatation of the capillaries, and therefore a larger surface for interchange of elements between blood and tissues; that the amount of urine was slightly increased; and, finally, that the elimination of nitrogen from the kidneys and bowels was not diminished, provided the usual amount of nitrogenized food was taken.

Alcohol may excite the system to activity and restore for a short time a lost vigor of vitality, but it is unable to replace for any length of time other articles usually assimilated by the organism. When its use is long continued, the powers of assimilation become weakened and food can not be appropriated in sufficient quantities to support physiological life; and when such a condition arises, the craving for alcohol, although produced by its own toxical devastations, becomes a pathological condition—a state where a habit for alcohol is developed by an alcoholized system.

The second question, whether alcohol is capable of producing heat in the body, is inferentially if not explicitly answered by the experiments of the authors quoted. It is properly argued that alcohol being a hydro carbon, and classified chemically between the sugars and fats, undergoes combustion while being consumed, and that therefore it is a generator of heat. While this is not denied, it would be well to take into consideration the fact that this produced heat is a force expending itself on the over-activity which it produces in the tissues by rapidity of the heart's action. In other words, the inordinate vito-chemical interchanges produced thereby exhaust the fuel soon and entail a need for more, which, when not met by either food or more alcohol, will soon reduce the system beneath its self-calorifying capability, and lead to its suffering in a way the reverse of that intended. But abuse of alcohol reduces the powers of alimentary digestion, and less food is therefore appropriated; hence the system requires a substitute, and the victim falls again into that unfortunate state of self-engendered habit for alcoholic stimulants.

Aside from all arguments, we reach by experience the incontestable *fact* that its use does *not* enable man to endure a lower temperature than does the use of properly selected food. Dr. Hayes, of arctic celebrity, says that in the polar regions the administration of alcohol is not only useless but positively injurious. He further states that when circumstances arise under which its use seems imperative the succeeding reaction is to be dreaded, and that the immediate danger is only temporarily warded off. He, therefore, comes by practice to the same conclusion which has just been reached by theory, namely, that the increased vital action produced by the stimulus without an equivalent additional supply of food, or, in other words, without sufficient material to work upon, will induce a subsequent depression.

Does alcohol reduce the amount of wear and tear in the system? It has already been stated that the latest investigations have not revealed any diminution in the elimination of nitrogenous substances and carbonic acid, which are the evidences of wear and tear. Practical experiments also demonstrate that alcohol does not increase the power of enduring prolonged work or severe labor.

The results of Parkes's and Wallowiez's experiments may be stated as follows:—The heart of an adult makes about seventy-three and a half strokes in a minute, or in round numbers about one hundred thousand strokes in twenty-four hours, which has been calculated to equal in work the lifting of two hundred and sixteen tons one foot. They gave quantities of alcohol varying from one to eight ounces, progressively increased for days, and noted the increase in frequency of the pulse. On the ninth day, with one ounce of alcohol, the pulse beat four hundred and thirty times more than during a "water" period. On the fourteenth day, with eight ounces of alcohol, the increase was twenty-five thousand four hundred and eighty-eight; the heart during the alcoholic period doing a *daily* average work in excess equal to lifting fifteen and four-fifth tons one foot. After the alcohol had been left off, the heart showed how it had suffered from this strain by signs of unusual feebleness, and it took five or six days for the heart to recover its tone, as shown by the sphygmograph.

It has been sought to impress by the foregoing remarks that alcohol is of no value as an aliment in any physiological point of view; its effect is only pathological, toxical. It now remains to prove the connection of the pathological effects with the craving for more alcohol. This poison affects the system in three ways:—First, as an irritant to the mucous membrane of the stomach and other portions of the alimentary canal, by which a congestion of blood-vessels is produced, and consequently also a disturbance in the secretions of that membrane. In chronic cases the submucous structures become degenerated, and the organ of secretion either impaired or destroyed, so that the fluids which they should furnish to promote digestion become either vitiated or are entirely wanting. Hence the loss of appetite, the aversion to food, and the consequent asthenia, which seeks its relief in the stimulus which the system is most accustomed to, alcohol.

In the next place, alcohol after absorption stimulates the heart to rapid contractions and thereby quickens the rate of movements of the blood, and must of necessity impair the nutrition of every portion of the organism, and particularly, as I shall presently point out, the nervous system. Organic as well as inorganic chemistry shows that alcohol is a prominent agent in altering the chemical relations between compounds. In the system this influence is chiefly apparent in the large increase of the amount of fatty matter which alcohol produces in the blood, after being absorbed and forming a part of that fluid. The vitiated blood, together with the free alcohol which it may yet contain, affects all tissues and induces a destructive assimilation, reducing the nervous, muscular and areolar and all interstitial tissues to an almost lifeless, friable mass, resembling chemically a substance between fat and albumen.

The organs principally involved are those of the nervous system, the kidneys and liver. The diseases which have alcoholic intemperance so frequently as a cause—namely, cirrhosis of the liver and kidneys, Bright's disease, paralysis, hysteria, insanity, etc.—corroborate these facts. Of all the lesions, the disintegrations in the nervous tissue are the most significant. Alcohol appears to have a peculiar affinity for nerve matter. By its influence on nutrition generally, and by the power the nerves exercise upon the vital activity of each cell, all elective affinity within the cell wall becomes disturbed; and aside from a physical degeneration of tissues, a want of force is felt, which the sufferer thinks from unfortunate experience he can replace by a stimulus which has really produced this want of force.

Besides alcohol acts to a certain degree as an anesthetic, and as any feeling of want induces a painful sensation, that poison must come to the rescue. The effect of alcohol after an excessive and continued use is generally not confined to simply abnormal sensations, but is directed, through the nervous channels, to the organs of the higher manifestations of man, and lessens his intelligence and moral control over himself. Now, when the higher seats of nervous action become involved, there is a feeling of depression in spirits—a compound of contrition, remorse and hopelessness, and described by those who suffer from it as by far more terrible than any physical pain arising from drink: this condition ends by the sufferer having recourse to what he knows to be his only sure relief—liquor.

This habit is a physical desire, created by the debilitating influence of the very article which will alone appease it. It is a morbid psychological condition dependent upon a previously induced physical degeneration of the system. It is not like other diseases which depend on an inherent germ, and are determined by contact with a proximate or exciting cause; not a malady due to natural forces. It is an acquired state, demanding as a therapeutic agent the very drug which has poisoned the vegetative and animal life of the individual.

The *diseases* and *deteriorations* produced by prolonged indulgence in this destructive agent are, many of them, so common and widespread as to be generally unnoticed from their extreme familiarity—affecting as they do in these days, perhaps, a *majority* of every community; many otherwise obscure conditions of disease being easily traced to this source. Alcoholic dyspepsia, vascular engorgement of the surface, sensory disturbances, such as buzzing in the ears and floating specks before the eyes, extreme thirst, premature signs of failing strength and diminished power of resistance, such as redness of the eyes, tremors of the muscles, clammy skin, husky throat, white-coated tongue, labored breathing and powerless heart, *tell even to the victim himself* their tragic story of enfeeblement and decay. There are, however, other trains of evil which the patient himself can not so easily recognize, and which are often when present thought to be due to other causes, and are only known in their final results on post mortem examination, unless detected and remedied by a skilled physician during life, and their alcoholic causation pointed out.

Among the organic lesions (injuries to the structures of important bodily organs) may be noted:—Disease of the heart, disease of the blood-vessels, alcoholic consumption, diseases of the liver, diabetes, disease of the kidneys, cataract, sleeplessness from congestion of the brain, various nervous disorders and organic deteriorations of the substance of the brain and spinal cord, epilepsy, paralysis (partial or general), delirium and insanity, etc.

This frightful catalogue of bodily evils is no fancy picture; it is sufficient to say that alcohol is capable of producing, and does produce, all the evils I have related. It is also a well known and established fact among public men and administrators of the law that nine-tenths of all crime is committed after the use of some alcoholic beverage. Our large cities teem with hospitals and alms and workhouses, filled with victims of the abuse of alcohol.

We may now well ask ourselves the question, why do men drink? For many centuries our best and ablest physicians have been trying to solve the problem, and no doubt will continue until the end of time. But there are many causes which can and should be remedied. The cause of the desire to drink is not a physical cause but a moral one. Men drink because they like it; man has a fondness for the taste of liquor, and a greater fondness for the warming and exhilerating effect produced. We have met with scores of men and women who have been under our immediate supervision, and we have little doubt but it is the same with the greater portion of the human family, that drinking to excess is a pleasure. The effects on the mind and body soon become such that pain takes the place of pleasure. The restlessness and pain which is sure to follow the exhaustion drives the man back to his only infallible relief, the stimulant, thus gradually forming the habit before spoken of. The desire is as broad as human nature, and prevails largely of course among the vicious and depraved. What we must all deplore is its frequency among the best elements of our national life—the deadly thraldom of its tyranny thrown over so many minds whose work and whose influence might be an example in their day. Look at it as we may, the tendency of alcohol is towards ruin and destruction—steadily downwards, physically, mentally and morally. The best and noblest men to-day are self-deluded under its influence: it is in its nature to conceal its disastrous effects from its victims foreordained; it vitiates everything—thought, action, emotion, all are tainted by it, even in the best and highest natures.

The abuse of alcoholic stimulants is too often attributed as a cause of social and domestic trouble, but from reliable statistics in our possession we are warranted in the statement that the reverse of the above is the actual fact. We have met with in public life hundreds of instances where domestic trouble was the prime starting cause for the use of stimulants among both sexes, and the criminal courts of this country show plainly enough that the major crimes and murders are committed under the influence of liquor after a domestic unpleasantness. Some of the brightest and best men and women it has ever been my lot to know have succumbed to the use of liquor under *a tyrannical and despotic home government* in which they lived.

And now what shall we say of the remedy or treatment of this habit for liquor? That a man came of an intemperate ancestry, would be an element in determining the degree of moral transgression which would properly attach to the habit in his particular case, and to the amount of pity or charity with which we might view his misfortune; but to say that he was not a free agent when he commenced, or that he is justified in continuing the same course indefinitely, is to introduce an element of poisonous and destructive sophistry into a subject sufficiently obscure. This excuse of heredity is too often a cowardly subterfuge, under which a purely idle and vicious self-indulgence seeks to escape the odium which justly attaches to a selfish vice. The blame which should attach to different cases varies very widely, but in no instance can I allow that there should be any such unconditional absolution given as the plea of hereditary disease would seek to establish, and which it now claims by imputation.

Many persons, when they find the habit of drinking growing upon them, endeavor to moderate the pace at which they are running. In some cases this succeeds for a time, and they pass for moderate drinkers. Usually, however, the habit gains in power and the daily amount of alcohol is steadily increased, and eventually the decline in health, business or reputation is so palpable that it is evident something must be done. There is but one course to pursue, that is give up drinking altogether; *there is no such thing as a compromise.* It must be total abstinence or utter ruin, and to this must every one with an established alcoholic habit finally come. I say to any man who has had the misfortune of falling into this habit: — Leave your friends, your business for a time; place yourself without the reach of temptation. A few months will accomplish all; no matter how bad the case is, if a man has a desire to reform and the courage to make the attempt, he will succeed. Our profession can not cure intemperance; we can simply by our advice smooth the inebriate's pathway to health, and show him how he can go forth again with a strong body and a clear mind, with a will strengthened and disciplined, and confidence again restored in himself. The intemperate are a sensitive class, and we have this to meet and impress upon their minds that they have only fallen upon an evil from which many of the best men of this and all former generations have suffered. The disgrace is to supinely wallow in the mire into which they have accidentally fallen, instead of standing up like men and shaking off its entanglements. It is a singular circumstance that the men of brains, of brilliant imagination, of charming fancy, of sparkling wit, of noble aspirations and generous temper, should be so often stricken with this calamity. Men of talent, men of genius, or having the temperament of genius, have in all ages been prone to this weakness. This class are always worth saving, if it is at all possible.

Of course as medical men we can not advise even moderate drinking. Certainly there are a few who can drink moderately, but we are unable to point out that favored few. The dangers are so real and terrible, the advantages on the other side are so few and so delusive, that it is clear that *the safest rule is total abstinence.* There are no medical remedies for the appetite for liquor. We have no disease to treat, but man's moral nature to reform. We may secure sleep and relieve the unfortunate while under delirium, but we have no drug to supply the craving for whisky.

In a word, if a man does not desire to reform, we can not compel him. We may place him in confinement against his will, and in a short time he will devise a means to procure stimulants, even in many of the best regulated institutions. Our experience leads us to say that every man who makes a determined effort and places himself under the advice of his physician, will succeed, and in less than one year after beginning the attempt, by a willing and strict adherence to the rule of total abstinence, he may consider himself safely over the dark and dismal road.

NEW YORK CITY.

FOREIGN CORRESPONDENCE—OUR LONDON LETTER.

LONDON, August 15, 1879.

MY DEAR YANDELL: The time for your letter comes round swiftly. And now that we have got some weather something like summer, we all feel lazy, and are dreaming of green pastures rather than desk work. And green pastures we have this year, and no mistake. Our wheat is very sadly rachitic indeed, and our potatoes are waxy. Our hops are just saved, and also the barley, so that there will be ale in England, even if we depend upon foreign countries for our bread-stuffs; a conclusion which may be less acceptable to the followers of Sir Wilfred Lawson than to the rest of the Britishers. For I don't mind taking you into my confidence, dear Yandell, but I have tried systematically the different non-alcoholic beverages, sampled them fairly, and, between ourselves, I have not yet found a fair drink among them, or anything to touch ginger-beer—that is at a reasonable price. And I do think, seriously and in all gravity, that if these temperance people are in earnest in their warfare on alcohol, they ought to be able to give us something in lieu of the time-honored beverages, to which they profess to have a rooted objection—something that will quench thirst without intoxicating. And I do not stand alone in holding that the very best thing they can do to put away our national liking for beer is to give us something equally good instead, at the same price. Is it not monstrous that we must pay for lemonade twice the price of a first-class expensive ale? And now when the long-looked-for summer weather is upon us, it is becoming, indeed, a burning question to know what to drink. However, perhaps the teetotallers will take the question up against another year.

R. Liveing has recently been discussing the subject of eczema of the palm, miscalled psoriasis palmaris. He holds that simple psoriasis rarely attacks the palm or sole, except in gouty subjects where there is usually eczema as well as psoriasis. He holds that the syphilitic form of palmar psoriasis should be termed a squamous syphilide, in order that definite distinctions may be made; but fears that the old phraseology is too well established to become obsolete. As to its treatment, he gives several reasons for its being confessedly difficult. The position and mobility of the part is unfavorable to treatment; as fast as the skin heals it is rebroken by flexion and extension. This makes the treatment of chronic eczema rimosum in servants, and others who use the hands much, very protracted. Then the hands are frequently wet by washing or certain occupations, which makes the skin brittle and so retards the cure. In such cases india-rubber gloves are indispensable to cure. The next difficulty is that the cuticle of the palm is thick, and does not exfoliate readily, and the consequence is the products of inflammation do not readily escape, and the outer cuticle becomes thickened and brittle, so as to be almost horny, and it is necessary to the cure to get rid of this. Water dressing, lead lotions, or linimentum calcis, according to circumstances, are the local measures to be adopted; the gist of the treatment being never to let the dressing become dry. At the same time it is well to keep the bowels freely open. In the most obstinate chronic cases the different forms of lead or mercurial ointment should be applied, while the hand is rested, covered, and washed little, the ointment being applied continuously. Where the cuticle is much thickened, it may be necessary to remove it by the application, night and day, of a solution—four drachms of liquor potassæ to eight ounces of water. Rags wetted with this lotion should be kept on and covered with gutta percha. When the cuticle is perfectly macerated and white, it will peel or rub off readily. This should be carried on until the epidermis is reduced to its normal thickness; after which the treatment given above must be applied. Arsenic internally is often of great service.

A successful instance of Battey's operation has occurred under the care of Dr. Heywood Smith, in a woman of forty years of age. She had long been troubled with ovarian disturbance and uterine consequences. Being a poor woman, scarcely able to earn a living in consequence of her impaired health, she was willing to run the risks of the operation, which were placed clearly before her; and she eagerly pleaded for the operation. It was performed with the bichloride of methylene as the anesthetic, and under the carbolic spray. The right ovary was first found and removed, the pedicle being tied with "a fine double carbolized silk ligature," and then dropped back into the pelvis. The left ovary was then found after some little difficulty, and treated in a similar manner. "Neither oviduct was included in the ligature." Nine silkworm sutures were passed through the peritoneum, but not through the muscles. The wound was dressed with three small bags of lint filled with carbolized disinfecting powder; over them four folds of thymol gauze; then eight folds of carbolic gauze, with waterproof, cotton-wool, a dry cloth, and strapping; and lastly a flannel binder over all. A morphia suppository (half a grain) was then introduced into the rectum, and the patient put to bed. The operation lasted forty minutes. The temperature rose that evening to 101.6°, but next day fell to 98.8°, and never after rose to more than 99.6°. Very little pain was experienced, and some colored discharge from the vagina followed for five days, with leucorrhea for three days longer. She made a perfect recovery. This case in all its details is highly creditable to Dr. Heywood Smith, and contrasts with the non-success of sundry other operators very satisfactorily. The right ovary was small, and weighed fifty-seven grains; the left weighed eighty-five grains. There had always been much pain in them; but there were no gross changes in them, so that they could scarcely be said to be diseased.

"Ovarian menorrhagia," is the title of a paper by Dr. Alfred Meadows, read before the Harveian Society some time ago. He explained that the term is not one as yet in common use, but is one that must soon take its place in our vocabulary. He holds the view that the ovary is the commencing point in menstruation—a view not held by John Williams, Mary Putnam Jacobi, and others. According to these latter authorities, there is a catamenial cycle which culminates in the menstrual week; there is a slow rise of arterial tension until the commencement of the menstrual week, when it rapidly falls. In fact that there is general vascular fullness preceding the menstrual flux, which is really a superfluous wave of nutrition that fits the female organism for the demands of pregnancy. According to this view ovulation may or may not occur with culmination of the superfluous wave, though usually it does. On the other hand, Dr. Meadows holds the older view that the vascular fullness of the ovaries is precedent to the vascular congestion of the uterus. Ovulation is accompanied by turgescence of the lining membrane of the uterus and fallopian tubes, and on this prepared ground the impregnated ovum finds a habitation adapted for its development. Certainly, the fact remains that there is a turgid mucous membrane during the catamenial flow. He says then "the ovary is, as it were, 'master of the situation;' that it is in fact highest in physiological dignity and importance, and that the uterus, so far as menstruation is concerned, merely obeys the physiological behests of the ovary." Without agreeing with or differing from Dr. Meadows about this, his clinical observations as to the relation existing betwixt menorrhagia in many cases and conditions of ovarian disturbance are well worth listening to. We constantly, he observes, speak of "ovarian dysmenorrhea," where the pain is ovarian and not uterine, and must learn to regard many cases of menorrhagia as primarily of ovarian origin. He thinks that where there is too frequent ovulation, the periods occur too frequently and at too brief intervals. In these cases the most careful examination fails to find any morbid condition of the uterus, or any tendency to the so-called hemorrhagic diathesis. Yet there is a profuse flux from the uterus in these cases. Pain in one or other ovary there is, usually in the left; just as varicocele is more common in the male on the left than on the right side. This ovarian pain extends upward to the renal region: in this it differs from pain in the broad ligaments, which goes through the sciatic notch and extends down the thigh, both back and front of the affected side, and which does not go upward at all. There is also with this ovarian pain intercostal neuralgia, the inframammary pain so much complained of by women. There is commonly in these cases an excessive secretion of urine, the hysterical urine so-called; and in some cases there is the *globus hystericus*. When, then, a case of menorrhagia presenting the above features presents itself, and no fibroid, or polypus, or other uterine trouble can be made out, how must the practitioner proceed to treat the case? The first idea, Dr. Meadows says, in the mind of the practitioner, in ninety-nine out of every hundred cases of menorrhagia, is to think what astringent shall be used. Usually an astringent chalybeate is selected. But in these cases the persalts of iron are "worse than useless." Really they begin at the wrong end of the pole—at the uterine end and not the primary ovarian end. The drug of all others to be used in these cases is the bromide of potassium. He does not elaborate out the action of this agent (though its mode of action is now pretty well understood), but confines himself to the bare statement of its utility. Then as a local application he thinks conium to have the most effect as an anodyne. He uses it in a one grain dose in a pessary. Next to this he prefers atropia as a local application. In such case he uses the alkaloid in preference to the galenical preparations—so that it should stand one grain of conia in each pessary.

Dr. Meadows said that this was but a fragment of a great subject, and he merely put forward his paper to suggest thought in other practitioners. As a matter of fact how much palpitation, and how much dyspepsia are due to far-away ovarian irritation, is only known to those who have learnt to recognize the relation. Dyspepsia with a clean tongue, my dear Yandell, whether accompanied by menorrhagia or leucorrhea, or both, with intercostal or facial neuralgia, you may take my word for it, is never, or hardly ever, primary; it is reflex, and ovarian in origin. *Experte credo!* Through how much blundering, how much ineffectual treatment and chagrin I have learned to know this, is confined to my own breast.

Sir Henry Thompson has recently published a series of cases of lithotrity, performed completely at one sitting. For some years past he has been in the habit of removing small stones—those weighing less than eighty or ninety grains—at one sitting. He uses a very powerful instrument for the first crush or two, with a peculiar beak. "The difference in this new lithotrite consists in making the lower part of the male blade keel-shaped, or like the prow of a ship, while the upper part is still flattened; so that the instrument may execute powerful cutting and crushing actions simultaneously. The male blade is also placed at right angles with the shaft, and thus acts at a great advantage in comparison with a blade diagonally placed. At the same time the female blade retains its curve, enabling the instrument to be introduced with as much facility as heretofore. Lastly I have thickened the sides of the latter, and enlarged the opening to admit the prow of the male blade to enter it and drive out any *débris* which—with the increased amount of work now required—might otherwise lodge and impact the blades." Thirteen cases he then relates. "In all the cases appended I have used my improved aspirator, which I have described in the Lancet, February 1, 1879; and have removed large quantities of *débris* by it, and a smaller quantity by means of the flat-bladed lithotrites." He says one hard uric acid calculus weighed no less than three hundred and twenty-nine grains.

He continues:—"I have no hesitation in stating we owe to Prof. Bigelow the assurance that so much manipulation is tolerated by the bladder in the process of removing the stone, provided we take it away or nearly so. It is quite true that the presence of sharp broken fragments in that viscus does more damage to it than the prolonged, but of course careful use of instruments for their removal. My former partial but not complete recognition of this fact for years past, led me to observe the value of a prompt and free use of the lithotrite and of Clover's aspirator when inflammation of the bladder has been produced by fragments; a fact to which I called especial attention on repeated occasions. Under such circumstances I have, with these instruments, removed from one hundred to one hundred and fifty grains at once, and thus instantly checked a violent cystitis. It is unquestionably better, however, to prevent than to cure; and this lesson, I think, is one which may be deduced from the foregoing cases."

He concludes:—"There is one observation I may make, and it is this. When the great bulk of a calculus of considerable size has been removed, say in fifteen or twenty-five minutes or thereabouts, and it is quite obvious that a small piece or two only remain, I would advise that, if another effort or two to remove these last be unsuccessful, it is better not to repeat fruitless manipulations, but to give over the search to a future attempt. As far as my brief experience above given enables me to judge, it is wise I think to leave, as I did in three or four cases, a fragment or two which seemed unwilling to be caught until a day or two later, and meantime had clearly done no harm. Lastly, there is a fact about which I have no manner of doubt, namely, that large and clumsy lithotrites are unnecessary for our purpose; and that the instruments I have described above are more efficient, safe, and speedy in their action than the large and unwieldy lithrotites which have been proposed."

And now, Yandell, I am off to the country for "a change of air and scenery." By the way, I heard a story about a corpulent friend of yours the other day. He was visiting a patient in a ward at the top of one of the pavilions of St. Thomas's Hospital. He is a punctual man, but was a few minutes late. The explanation was that he had essayed the lift—elevator you call it—which had given the job up half way, and he had been stuck. He was too much for *that* lift.

Reviews.

Neurological Contributions. By WILLIAM A. HAMMOND, M. D., Professor of Diseases of the Mind and Nervous System in the Medical Department of the University of the City of New York. Assisted by WILLIAM J. MORTON, M. D., of the University of the City of New York. New York: G. P. Putnam's Sons.

This appears to be No. 1 of Vol. I of a *quasi* periodical, to be issued by the publishers quarterly, or at least four numbers are promised for this calendar year,—all the contents to be written by the gentlemen named in the title.

The first paper in the present number is the "Non-Asylum Treatment of the Insane," by Dr. Hammond, purporting to have been read by invitation before the Medical Society of the State of New York in February, 1879, except so many of the foot-notes as are included in brackets.

At this distance it looks a little as if the memoir may have been published as a means of carrying the bracketed foot-notes to the public, they being, for the most part, an assault on the professional character of certain public officers—superintendents of insane asylums—against whom the author appears to have a private enmity. Notwithstanding this apparent animus of the paper, there are some good points in it regarding the nature of insanity and the best methods of managing its victims; but even these good points are clouded and robbed of a measure of their value by a strain of egotism that runs through the entire essay, and a fashion the author has of magnifying the importance of facts that support his purposes and obscuring those that militate against his aims.

Certainly the time has come for qualified men to discuss the propriety of building palaces—extensive, expensive and ornate—into each of which are crowded hundreds of human beings robbed of their reason to a lesser or greater extent. The interiors of these palaces are arranged in the supposed interest and safety of the patients, but they are prisons after all, with some effort to provide facilities for a limited classification of prisoners. The exteriors of these palaces, with their imposing façades and a frontage of wings running to a vanishing point with artistic effect. These surely are not conceived and completed solely in the interest of the insane; they are for effect on the sane world, and are begotten in pride and perfected in vanity, and this presents broadly and squarely the question whether a pure christianity, a refined civilization, or a scientific technics, will support the view that underlies the indulgence of pride and vanity in connection with the management of the insane? There is a growing conviction with those fitted to judge in the premises, that less expensive and showy buildings, and more of them, will authorize a classification and a treatment of lunatics more in accord with advancing knowledge of both the physiology and pathology of the brain, and the attendant and dependent psychology.

The second paper is a clinical lecture descriptive of three imbecile dwarfs born of the same parents — who had also six other children normal in body and mind — and an analysis of their respective mental conditions. The lecture is by Dr. Hammond, and is illustrated by photographs of the dwarfs.

Another lecture by the same author is on what he names Mysophobia, which is defined to be "a morbid, overpowering fear of defilement or contamination." Dr. H. claims that this is a different species of insanity from *la folie du doute* of M. Le Grand du Salle; but at farthest they can be but varieties, and probably would not be given separate names but for the *penchant* for originality in the author.

Eight cases from the "Records of Practice" of Drs. H. and M. present various forms of nervous derangement and a very successful management; but such reported success does not necessarily imply that the cases were on that account selected.

Under the head of "Contemporary Literature," is given a petition to the New York legislature, charging incompetency in the officers of lunatic asylums in that state, and mismanagement of these institutions, and suggesting a method of ferreting out the extent and nature of these shortcomings. Following this is a report of a committee of the Ohio legislature on the cruelties practiced on patients in Longview Asylum, near Cincinnati; and then this branch of the literature closes with an extract from the report of Dr. Morse, superintendent of the asylum at Dayton, Ohio, warmly commending the views and practice of Dr. Morse.

One is impressed by a certain air that seems to pervade these articles about hospitals for lunatics, that they have been gotten up and published under an inspiration not wholly derived from a pure and philanthropic desire to improve the sanitary estate of the insane under state care, but that defects in this department of state policy have been seized upon and made the pretext for an assault, by indirection, upon professional gentlemen whose lives and actions have not been squared by the rule presented by the author of this publication. The first and last articles, therefore, in Neurological Contributions appear to have been born of the same spirit.

J. F. H.

The Pharmacopœia of the Hospital for Diseases of the Skin, London. Edited by BALMANNO SQUIRE, M. B., London, Senior Surgeon to the Hospital. London: J. and A. Churchill.

This book contains the formulæ for two or three hundred preparations of ordinary medicines in the manner adopted by the London Hospital for Skin Diseases, and in every case the purpose for which the preparation is applied is briefly mentioned. Perhaps it would be as well to call these formulæ prescriptions, as they do not embrace any of the preparations of the British Pharmacopœia specially named for diseases of the skin. The information in this little book might be useful to sundry professional persons, and valuably suggestive to many.

J. F. H.

Diseases of the Throat and Nasal Passages—A Guide to the Diagnosis and Treatment of Affections of the Pharynx, Œsophagus, Trachea, Larynx, and Nares. By J. SOLIS COHEN, M. D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest in Jefferson Medical College, Philadelphia. Second edition, revised and amended, with two hundred and eight illustrations. New York: William Wood and Co. 1879. 742 pp.

A second edition of Dr. Cohen's treatise has been promised for some years, but has been delayed by causes beyond the author's control, as he informs in the preface. The present edition has one hundred and sixty pages more than the first, and seventy-five more illustrations. One hundred and sixty pages do not cover the entire increase of text, because several pages of bibliography, as well as some other matter, have been omitted from this edition, and their places supplied with fresh material derived from the author's increased experience and the general advancing knowledge in this department of medicine. "The author's Lectures on the Surgery of the Larynx, Nares and Trachea, delivered before the College of Physicians, Philadelphia (1872), and those on Fetid Coryza (1873), on Sore Throat, and on Diphtheria (1874), before the classes in Jefferson Medical College, and published respectively in the Philadelphia Medical Times, Philadelphia Medical and Surgical Reporter, and New York Medical Record, have been substantially incorporated into the present edition."

This renders the book before us a very complete treatise on diseases of the throat and nares, strongly tinctured with the author's individuality; but a book is all the better for its author's individuality, provided it be the individuality of integrity, intelligence and experience, and such is Dr. Cohen's. While, however, the author draws chiefly from his own resources of clinical knowledge, his observation and experience have been made and obtained on a thorough examination and appreciation of the teachings of other worthy investigators of the same classes of disease, to whose writings he makes sufficient reference.

The book is divided into seventeen chapters, covering a description, with pictures, of the various instruments used, and instructions, with illustrations, for handling them; descriptions of general and special diseases of the throat and nares, with practical clinical illustrations of both symptoms and treatment. One chapter is devoted to diphtheria, and in other chapters the author treats of croup, scarlatina, mumps, and other systemic ailments not usually classed as throat or nasal diseases. He takes some pains to point out the differential diagnosis between diphtheria and croup—a difference that some good doctors do not see, though they ought to; and his treatment of membranous croup is less heroic and more rational than our text-books usually inculcate, but might be still further modified in the same direction with advantage.

The volume will accordingly be found to embrace the latest and fullest exposition of the nature and treatment of all diseases manifesting themselves in disorder of the throat and nares, whether systemic, local or neoplastic.

The type is large, on thick soft tinted paper, and the woodcuts for the most part are excellent. J. F. H.

A Guide to Therapeutics and Materia Medica. By ROBERT FARQUHARSON, M. D., Edin., F. R. C. P. Lond., Lecturer on Materia Medica at St. Mary's Hospital Medical School, etc. Second American edition, revised by the Author. Enlarged and adapted to the United States Pharmacopœia by FRANK WOODBURY, M. D., Physician to the German Hospital, Philadelphia. Philadelphia: Henry C. Lea.

"There is no more encouraging evidence of progress in medical science than the growing desire of the profession for exact information concerning the action of remedial agents." This is the opening sentence of the American editor's preface, and it is true; but one may add that the longed-for goal is apparently yet afar off. Therapeutics has more serious impediments to overcome in its progress toward the complete than any other department of medical science. The force and direction of the action on the human system of a number of drugs are so well established that this certainty is made to serve as the basis of a series of assumptions in regard to the action of a large number of drugs whose influence has never been demonstrated. Frequently nothing is known of the influence of a drug on the system in a physiological condition that is asserted to have the most valuable influence on the system in a pathological condition. Dr. Farquharson has sought to secure something of precision in this behalf, so far as present knowledge is available to that end, by placing the physiological action of medicines and their therapeutic application in parallel columns on the same page. This is undoubtedly of value, and would be of immeasurable service if it were not for the fact that exact knowledge of the action of medicines on man in a physiological condition is too limited to be relied on in any considerable number of remedial agents; and, furthermore, it must not be forgotten that drugs do not always have the same action on man in a pathological state that they do in his physiological state.

This book has an introduction of forty-three pages, discussing the routes by which medicines enter the system, the general rules for prescribing, dosage, and the comprehensive principles of therapeutics. Then thirty-six pages of remarks on remedies by classes; then three hundred and thirty-six pages, devoted to the delineation of the physiological action and therapeutic value—but not to their history or preparation—of individual medicines, official in the United States Pharmacopœia; then thirty-two pages descriptive of the importance and value of medicines, not official in the Pharmacopœia—and this includes some of the most powerful and valuable remedial agents now in the service of practitioners. Then six pages about poisons, their antidotes, and the treatment of their effects. Then seven pages of questions—numbering seventy-two—intended for exercise for students and others, and to test their ability to answer off-hand each to himself, many important queries that arise in the every-day prescribing of medicines, and which it would be best all could answer without recurrence to authority, but some of which it is feared would puzzle some practitioners a score of years in the service. And then the reading matter closes with five pages of elucidation of the metric system; and, by the way, all prescriptions in the book are written in metric quantities, as well as in the old style. A full double index—eighteen pages of diseases and their remedies, and twenty-two pages of general index—closes the volume.

The first edition of this work was issued in 1877, and exhibited evidence of haste and carelessness in preparation, which was noticed by the reviewers. In the preface to the present edition the author returns thanks to his critics, says he has profited by their labors, and expresses the hope that they will treat this edition as they did the first. There is not in this issue the same foundation for objection in this behalf that there was in the first, but the book is not yet entirely free from such defects.

The book is a compendious and instructive guide to therapeutics and materia medica, intended for the student and young practitioner, but may be valuable to practitioners of any age; and if carefully studied might add something toward a barrier against the use of the immeasurable trash of countless names with which manufacturing pharmaceutists are flooding the country, themselves declaring the medicinal virtues of their wares, or having them extolled by the hired experience of witless doctors. J. F. H.

Handbook of Diagnosis and Treatment of Diseases of the Throat and Nasal Cavities. By CARL SEILER, M. D., Lecturer on Laryngoscopy at the University of Pennsylvania, etc. With thirty-five Illustrations. Philadelphia: Henry C. Lea. 1879.

As a brief, clear exposition of the armamentaria of the laryngologist and rhinologist, and of the symptoms and treatment of diseases of the throat and nasal cavities, Dr. Seiler's little book is a success. All theoretical discussion is avoided, but a plain, concise statement of the symptoms, subjective and objective, of the various disorders of these parts is given;

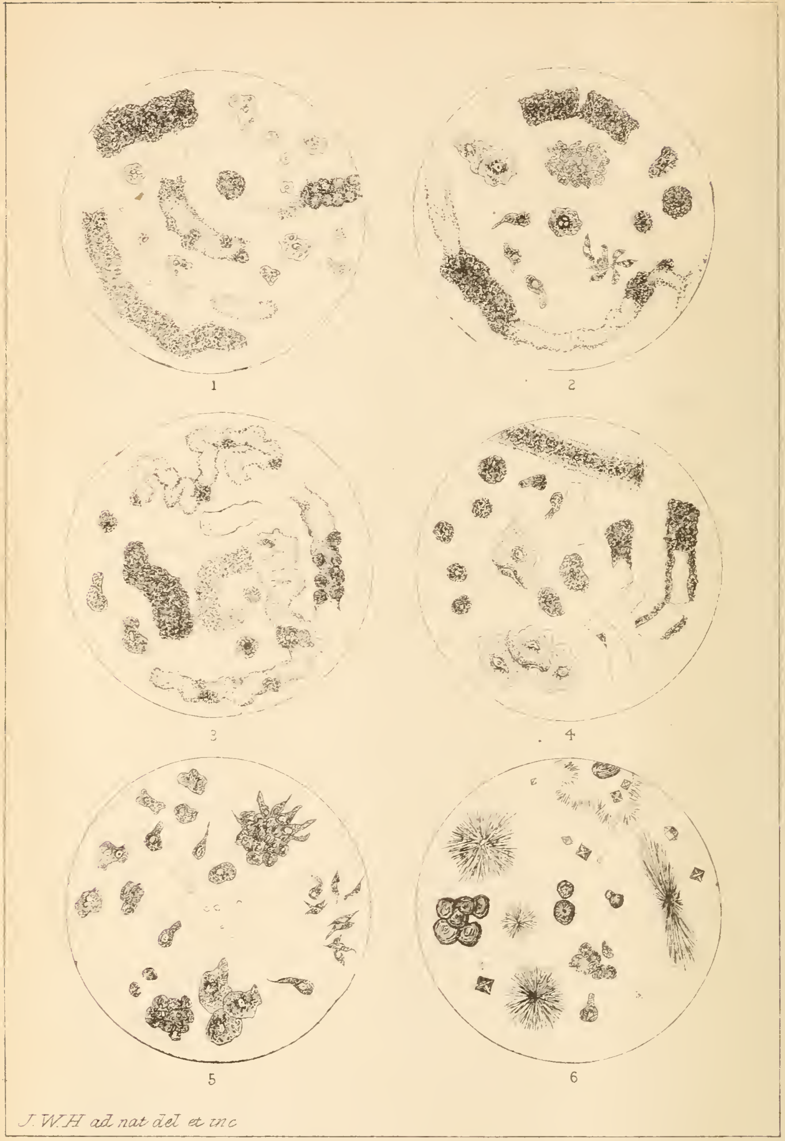
and with equal directness and precision the author's views of treatment are presented, inclusive of all essential details, and directing how to avoid accidents, errors and mistakes in the delicate operations required. One can not but be gratified at the pains he takes to instruct as to the value and method of applying the nasal douche, pointing out the mischief that is often done by its wrong manipulation, and the improper character of the fluids used. This advice is needed, for it is probable that the injudicious use of this *quasi* popular instrument has accomplished enough mischief to more than counterbalance the good it has done. Dr. Seiler details a treatment that he tells us will cure ''hay cold,'' as he names hay fever; and what is better, informs us how it may be prevented.

The confident tone of the book will suit the young doctor, who does not like *hems* and *haws* nor *ifs* and *buts;* and if older practitioners find fault, it will be with too strong a manifestation of faith in drugs, and that the implied constant success of treatment can not be realized in practice. J. F. H.

Posological Table—Including all the Officinal and the most frequently employed Unofficinal Preparations. By CHARLES RICE, Chemist, Department of Public Charities and Correction, New York. Revised and approved by members of the Medical Boards of Bellevue and Charity Hospitals. New York: William Wood and Co. 1879.

By means of intelligible signs and abbreviations the author has managed to place into this little book nearly two thousand names of medicines, simples and preparations, official and unofficial, in the United States Pharmacopœia, their composition and average dose for the adult. After the dose of all active or poisonous medicines, symbols indicate the necessity of caution in increasing the dose, and to some extent signify the limit of safety. For the purpose intended it is a well conceived and executed work, and may be kept for reference or as a remembrancer, with advantage, by those who need such aids outside of the regular text-books and systematic treatises.

Urinary Deposits in Yellow Fever



2	Type of Sediment after 4th day in malignant cases.
1,3 & 4	Variations from the type after 4th day
5	Type of Sediment after 2nd day in mild and up to 4th day in severe cases.
6	Leucine and Tyrosine, occasional 3rd day.

Clinic of the Month.

THE URINE IN YELLOW FEVER—A CLINICAL STUDY.—The following article upon a subject in which we are all interested, by Prof. J. W. Holland, M. D., of Louisville, we extract from the London Practitioner, July, 1879. Dr. Holland has sent us some conclusions, which are appended to the article:

It is the opinion of many besides Dr. A. Flint that "further study of the urine in yellow fever by means of chemical and microscopical examination is a desideratum." Ballot, Blair, and Lawson, have asserted that the least doubtful sign of it is derived from an examination of the urine. These considerations moved me to direct particular attention to this excretion by the usual methods of clinical analysis, when the opportunity was afforded in the outbreak at Louisville, Kentucky, during September and October, 1878. Drawings of the sediments and brief records were made in the study of twenty-five cases occurring in the infected district and presenting symptoms more or less suspicious. Nearly all of these would have been grouped in the family of fevers called yellow had they appeared in a region where the disease was expected, or where it had ever held undisputed sway. Inasmuch as this was the first time indigenous yellow fever had appeared in Louisville, and its identity was considered by some not indubitable, the specific name is applied to fourteen out of the twenty-five, these being of the malignant grade and such as are everywhere recognized as the disease in question when it appears in the epidemic form. The epidemic slowly widened its boundaries, and ceased only with the appearance of a hard frost.

These cases were all in near local relation with the depôt of the Louisville and Northern and Great Southern Railways, and constituted about half of the entire number that made up the outbreak. They presented these symptoms in common: ushered in by a chill; there were headache, backache, and soreness of the limbs, followed by a fever ranging in temperature from 102° F. to 105° F.; the epigastrium was tender or painful, and stomach irritable; color of the skin at some time bright yellow; excessive vomiting, sooner or later black vomit appearing. The urine was scanty or suppressed and albuminous.

In most of them the eyes were congested and ferrety; the odor of the person slightly nauseous and ammoniacal. There were no regular remissions of the fever, which was in some cases variable until death, in others there was an apyrexia on the fourth day; and in all, though the temperature was elevated, after the reactive stage the pulse was peculiarly slow and compressible.

The early cases having been cinchonized without benefit, the later ones were not so treated; all but two of these severe cases were fatal between the fourth and the seventh day.

Some of them I saw in consultation with Dr. Cox, for the reports of others I am indebted to Drs. D. W. Yandell, Cox, Scott, Manly, and Palmer. The accompanying plate gives a faithful reproduction of the characteristic objects as seen with a power of two hundred diameters.

Fig. 1 represents the deposit from the urine of a white boy, S——, aged fourteen. It was passed through the catheter, after deep pressure above the pubis, on the fourth day; death occurred in delirium on the fifth. It contained diffused granular matter and renal tube casts, highly, moderately and slightly granular. Some have epithelium embedded, and in various parts of the field are single fat cells from the urinary passages, which are studded with small flat globules. He had complained of malaise and frequent urination for several weeks. This may account for the fatty degeneration which was presented in one other subject who had been "on a beer spree" for a week before the initial symptoms. The urine was acid, lemon yellow, bile pigment, and one-half albuminous.

FIG. 2. This is the appearance of a copious brownish deposit from S. J——, white male, aged thirty-five, passed freely on the fourth day of fever. Death, preceded by hemorrhages from various parts, ensued three days later at the Yellow Fever Hospital, to which in the meantime he had been conveyed. It was pronounced by the physician in charge as marked a case in every detail as any that had been received as refugees from Memphis, Tennessee. The objects seen are: at the top a highly granular tube cast, made probably of degenerated renal epithelium; such cylinders abound, though all have not a sharp fracture and squared ends. At the bottom is a cast of a convoluted tube, in one part large enough to show that it was probably made of the disorganized cellular lining, and diminishing in size to the caliber of the tube when intact. These interesting forms were quite common in the grave cases. The clear portion is probably the mucoid matter of Beale. In the middle of the field is a patch of tessellated epithelium from the bladder, and some scattered cells with strongly-marked nuclei. There is a group of spindle-shaped cells, probably from the pelvis of the kidney. On the right is the "compound granule corpuscle," found in the other cases also wherever the granular cast was to be seen.

This figure is a type of the deposit seen on and after the fourth day in the following cases: M——, aged forty-eight, white male; V——, aged two and a half, white male; G——, aged thirty, white male; G——, aged twenty-six, white female; mulatto boy, aged twelve; McN——, aged thirty, white male; C——, aged forty-five, white male; C——, aged eighteen, white male; L——, aged twenty-five, white female; M——, aged thirty-two, white male—all of whom died. Only one case presenting these with the other grave signs survived. This was a negro boy, P——, aged eighteen, whose urine was of dark red color from hematine, almost solid when the albumen was coagulated, and in which was found bile pigment. This, the only case of hematinuria, recovered, and is to-day in fine health, which goes a little way to confirm the observation of Dr. Blair, that bloody urine was a favorable indication.

FIG. 3. The deposit from a specimen voided without difficulty on the eleventh day after the primary chill, by F——, aged forty-five, white male, of robust frame, who slowly regained and now retains his wonted health. He resides at Tenth and Dumesnil streets, a neighborhood that furnished no other cases to this report, at least half a mile from the infected district. His occupation, as watchman in the freight depôt of the Louisville and Northern and Great Southern Railways, brought him in the early morning within the range of a locality that proved so fatal to many. I saw him on the twelfth day in consultation with Dr. John E. Crowe; he then exhibited some restlessness, slight suffusion, and yellowness of the eyes; temperature normal, but pulse sixty-six and rather feeble; appetite and digestion good.

He had been seized with violent headache and pains in his limbs; then there was a chill and febrile movement that lasted about two days. His temperature was normal after the reaction, but his pulse compressible and sometimes only sixty to the minute. In the beginning his eyes were so red that his wife concluded he had caught cold in them.

Early in the attack his epigastrium became tender and his stomach very irritable; for several days he continued vomiting bile, but no blood. Toward the close of the first week hemorrhage from the gums set in, and, despite treatment, lasted nearly one week. He was cinchonized early. His urine was not examined until the eleventh day, when it was found acid, deep-red yellow, specific gravity 1.024, quantity normal, and one-fourth albuminous. Bile pigment was present, and a heavy lateritious deposit fell. Under the microscope amorphous urates were so abundant as to obscure other objects; gentle heat cleared them away, and there was revealed the field seen in Fig. 3: tube casts, granular, epithelial, and hyaline, with renal and vesical epithelium stained yellow. The worm-like mucoid casts were of a faint yellow tinge, or they would have been difficult to detect. I am inclined to call this yellow fever of a variety different only in degree from the unquestionable type before adopted as a safe basis of classification. It is a significant fact that M., above named as dying from the typical form, was a night clerk in the same depôt with the last described person. Both resided in parts widely separated from the depôt, and had nothing in common but employment there during the night or early morning.

Fig. 4. Objects seen in a dense deposit from the urine of Mrs. V——, aged thirty, pregnant at the fifth month. It was voided on the fourth day after seizure; she died three days later. The urine was acid, scanty, bright yellow, and one-third albuminous. Besides epithelium from the vagina, urinary passages, and kidney, there can be seen small waxy casts with a sharp fracture, some embedded in granular matter, and one containing granular matter in its axis. This was the only case which showed the waxy cast unmistakably. All the objects were stained yellow.

Fig. 5 is the appearance of the field on the third day in several cases examined at that time before the appearance of albuminuria. The objects are squamous, round and transitional epithelium from the bladder, and spindle-shaped cells probably from pelvis of kidney. Sometimes they were found in patches that covered half of the entire field. They were found sparingly in some cases of a mild form in which albuminuria was at no time present.

Fig. 6. Deposited from the urine of McK——, aged forty-five, who lived in the center of the infected district, and whose history, as obtained from Dr. Crowe, is as follows:—He was attacked October 10th with chill and headache, the temperature rose to 104°, and soon fell to 99° F. The general run of his pulse was sixty to the minute; his stomach was irritable, vomiting bile. His skin was yellow and flushed. He was cinchonized, and became convalescent by October 22. He was well before the seizure, and it left no sequel.

The urine of the fourth day was alkaline, yellow from bile pigment, not albuminous, and gave a light deposit, with the following microscopic characters as seen in the figure: bladder epithelium singly and in patches; groups of leucine spheres of a yellow color, and well-defined outline with concentric markings, shown on the left and in the center; tyrosine needles in stars and sheafs, with abundant octohedra of calcium oxalate. The specimen from which the drawing was made was mounted with a ring of cement after keeping it a few days under cover without change, and is now in my cabinet as perfect as it was six months ago. The cells and other organic matters owe their preservation to the biliary principles. Granting that the epidemic was one of yellow fever, as shown by the previously cited cases, the collateral evidence makes the conclusion inevitable that this last one occurring at the same time and in their midst is the ephemeral or mild form of the same disease. Leucine was recognized in imperfect forms where the urine had dried on the glass, in some other cases when biliary matter was abundant. Here it and its congener tyrosine are present beyond question.

When this paper was presented to the Kentucky State Medical Society in April last, in order to adapt it to the needs of the occasion the detail above given was not read, but instead the following conclusions were offered:

Attention is drawn to the following points:

1. That the desquamative process from the urinary passages, considered by Lawson as distinguishing yellow fever from pure intermittent and remittent, was present in every specimen described.

2. That in further agreement with his observations, where there was black vomit or some analogous discharge of blood, there was also the peculiar urinary symptom.

3. That the granular tube casts, like the black vomit, must be regarded as a grave portent; out of thirteen white subjects showing them, twelve died.

4. That the implication of the liver is denoted not only by the bile pigment, but sometimes by leucine and tyrosine in the urine. To reveal their presence, manipulations favoring slow evaporation are required.

The coëxistence of albumen with biliary principles in the urine would lead one to look for leucine and tyrosine; yet in a somewhat extensive search through the literature of the subject, I have failed to find their presence in yellow fever urine noted by any previous observer. They have been found in rapidly destructive diseases of the liver, such as acute yellow atrophy, and occasionally in typhus and typhoid fevers, and in small pox; consequently their existence in yellow fever urine is not diagnostic. They denote serious derangement of the liver.

TWO CASES ILLUSTRATIVE OF TWO IMPORTANT POINTS IN ELECTRO-THERAPEUTICS.—These cases are neither novel nor unusually interesting, so far as the symptoms of disease alone are concerned. I present them because they illustrate two very important points in therapeutics, especially electro-therapeutics, namely, the necessity for, and the good results that come from, perseverance in seemingly hopeless cases of infantile paralysis, and furnish a suggestion in regard to the differential indications for the use of galvanism and faradism in the relief of pain.

CASE I. I call attention first to this little boy, aged four, sent to me by Dr. S. H. McIlroy, of this city.

In September, 1877, the patient suffered from a very severe attack of chills and fever, followed by convulsive seizures. One week subsequently the right leg was found to be completely paralyzed, the other limbs, with the exception of the left arm, being also affected, but in a less degree. In March, 1878, six months later, the case came under my care. The leg was apparently without life, quite cold, and atrophied to the last degree, while the electro-muscular contractility was completely abolished, and probably had been for some time. After a month's treatment by general faradization and localized galvanization, the general condition had somewhat improved, but there was not the slightest evidence of returning galvano-muscular contractility. In two weeks more, contractions, almost imperceptible, were observed. These increased very slowly, and it was six months before the muscles responded in the least degree to faradization. At the present time, after a year of the most persistent endeavor, the contractions are considerable, the limb has increased much in size, its circulation is good, and the child can, with the aid of a chair, move about quite readily. I conceive it to be self-evident that if this patient had not been treated with unusual persistency, or if active measures had been delayed much longer, a condition of life-long helplessness would have followed. In consideration of the absolute and long-continued paralysis and loss of electric response to either current, the results have impressed me deeply, and should teach that even desperate cases of infantile paralysis should not be hastily abandoned to their fate.

CASE II. The second case, Mr. C., aged forty, was sent to me by Dr. Malcolm McLean, of this city, with the following history: Last Christmas, without knowledge of special exposure, but subsequent to much mental depression, the patient began to suffer from extreme pain in the lower part of the back and in the hip. A week later, the pain extended down the leg to the ankle, along the course of the sciatic nerve. The pain, instead of being sharp and shooting, was of a dull, aching character, and though at all times severe, yet frequent exacerbations occurred, rendering him quite helpless. After various methods of treatment, he attended a clinique at the College of Physicians and Surgeons, and submitted to cauterization of the limb, but with no good results. When I saw the patient, two weeks since, he had been suffering six months with no relief, and latterly the symptoms had increased in severity. On examination I found that firm and prolonged pressure did not increase the pain, but afforded rather decided relief. On the contrary, slight pressure caused all along the posterior aspect of the thigh very intense pain. I was well aware of the probable indications for treatment, but in order to test the case thoroughly I made a careful labile application of the galvanic current, with no good effect certainly, but rather with some increase of pain. Two days subsequently I resorted to faradization, placing both feet of the patient, that belonging to the sound as well as to the diseased leg, on the negative pole, and using an exceedingly fine current, avoiding all motor points, and carefully refraining from producing appreciable muscular contractions. The patient has been thus treated but three times, and is, as you observe, nearly well.

The points of this case that I wish particularly to emphasize are these:—First, that in differentiating between the use of the two currents for the relief of pain, the effects of pressure are most useful guides. Second, that while true neuralgia, as defined by Anstie, and pain generally yields as a rule more readily to the galvanic than to the faradic current, the latter is in some cases not only invaluable, but relieves where galvanism is worse than useless, since it serves only to exaggerate the existing distress. Hysterical neuralgias and the so-called pseudo neuralgias, which are simply forms of pain, occupying certain areas, and running seemingly in the direction of certain nerves, undoubtedly indicate the faradic current. In these cases it is well known that firm pressure tends to relieve, while light touches aggravate, the distress. This suggestion in regard to the effects of pressure in neuralgia as indicating the proper electrical treatment I have offered before, and have tested it very satisfactorily in many cases. While I do not enunciate it as an unvarying law, it will certainly be found exceedingly useful as a guiding symptom, and the above case of sciatica is, perhaps, as striking an example of its truth as any I have met with. (A. D. Rockwell, M. D., in Boston Med. and Surg. Jour., August 21.)

A SIMPLE METHOD OF PREVENTING MAMMARY ABSCESS.—Dr. Francis J. Shepherd, in the Canada Medical and Surgical Journal for July, writes thus of this distressing affection:

There is, I suppose, no accident which brings more discredit or gives more trouble to the surgeon than the occurrence in his practice of a "broken breast" case. Many remedies, such as belladonna, hot oil, frictions, etc., have been advocated to prevent this painful affection; but I have found none more efficacious and speedy than the following simple plan which has been used for years with great success by old women in country parts: in fact it may well be called, what indeed it is, an "old wife's remedy." When the gland becomes indurated, painful, and has a glistening red look—symptoms, in fact, of approaching suppuration—take a large piece of ordinary sticking-plaster, and cut it a circular shape (a larger or smaller disk, according to the size of the affected breast); make a hole in the center large enough to allow the nipple and half the areola to be seen, and apply this piece of plaster (after heating it) so that it will cover the *whole* breast, and that the nipple will protrude through the aperture in the center. To make the plaster fit more accurately, its circumference should be deeply nicked at distances of about an inch. The plaster should be left on till the breast softens, or the plaster ceases to exercise even pressure. This simple method, in the half dozen cases I have seen it used, has acted magically, the breast softening and the pain disappearing in the course of twenty-four hours. In one case a woman, who had suffered on several previous occasions from broken breasts, came to the out-door department of the General Hospital with all the symptoms of fast approaching suppuration in her right breast; in fact, I considered that within twenty-four hours I should be obliged to use the knife. However, I said to the students that if there was anything in the plaster remedy, this would be a good case in which to try it. I applied the plaster in the way described above. Two days after the woman returned and said, with a pleased smile, that it was the only remedy she had ever tried that had done her any good; that on previous occasions every remedy had failed to prevent her having a "broken breast." On examining the breast, I found it quite soft, painless, and with only one small lump of induration on the upper part, which disappeared in the course of a couple of days. In another case, where an abscess, due to depressed nipple, threatened, I applied the plaster as before, and in twenty-four hours there was hardly any induration, and no pain. In multiparæ, where the breast is dependent, in addition to covering the breast with plaster, I should advise supporting the breast by a band of plaster, an inch and a half broad, passing under the breast from shoulder to shoulder. I may say that I have only used this remedy in cases of threatened abscess, due to distension of the milk ducts, depressed nipples, and obstruction to a free flow of milk, due to exposure to cold. I imagine the plaster acts simply by exercising an even pressure on the breast and giving support to it.

DIPSOMANIA AND DRUNKENNESS.—In the Transactions of the Medical and Chirurgical Faculty of Maryland (1879), is an article by I. D. Thomson, M. D., junior physician to the Mount Hope Retreat Insane Asylum, in which he makes a distinction between drunkenness as a disease (dipsomania), and drunkenness as a vice, and the different classes of people affected by the two forms. He says:—"The one form of drunkenness, then, is clearly a vice, whilst the other is just as certainly a disease, and yet the victims are none the less both drunkards; burdens to themselves, to their families, and to the communities in which they reside, and a crying reproach upon the enlightenment and the controlling powers of the age in which we live."

He continues:—"How is this great evil to be remedied? Without assuming to myself the legal qualifications to frame such a law as would at once work smoothly, to the accomplishment of the object in view, or without entering at this time into full particulars, I would yet recommend and urge the enactment of such state laws as should cause the judge of the criminal or circuit courts, upon his being notified by next of kin—or other proper persons—that any individual was a confirmed drunkard, and had committed any misdemeanor or breach of law, to appoint a commission of three competent men (at least two of whom should be respectable practicing physicians), qualified to distinguish and determine the character of the drunkenness to be found. And this commission should be required to thoroughly inquire into the history of the case, and also to examine the drunkard himself; and if such inquiry and examination—under certificate or affidavit of said commission—should determine the individual to belong to the class of *ordinary drunkards*, then it should be the duty of said judge to commit the said ordinary drunkard to our House of Correction, for a period of from four to twelve months. But if, on the other hand, the finding of the said commission should determine such drunkard to be a *dipsomaniac*, then such dipsomaniac should, in like manner, be committed to a properly conducted inebriate asylum, for a period of from one to four years; and such asylum should be vested with full legal authority to carry out the system of compulsory detention and control. But if, as is now the case, no such properly conducted inebriate asylum existed in our state, then the said dipsomaniac should be committed to an insane asylum, whose managers should have the same authority to detain and control, as in other cases of insanity.

"And if, during the term for which such dipsomaniac had been committed—say after one year of treatment—the superintendent of such asylum should have good reason to believe that a cure had been effected, and in his judgment deem it advisable to test the question of cure, then said superintendent should have the authority to permit such patient to go at large temporarily, without restraint, on probation; his being returned to the asylum or not depending upon the ability of such patient to control his propensity for drink Also, that inebriate asylums—or in their absence then insane asylums—should be vested with legal power to detain and control, for not less than one year, such dipsomaniacs, as in the earlier stages of this disease might voluntarily seek admission and treatment. And also, if at any time during the period for which such dipsomaniacs had been committed, the said court should receive creditable notification that such patient was unjustly detained in such asylum, then the said court should appoint a commission of three competent physicians, who should confer with the superintendent of such asylum, and should also visit and examine the said patient, alleged to be detained unjustly, and, upon the decision and report of such commission, the said court should issue an order either for the discharge or for the continued detention and treatment of such patient."

Notes and Queries.

"WE HAVE CHANGED ALL THAT."—Time was when famous philosophers, physicians and theologians fully believed and earnestly maintained the doctrine of final causes. Indeed only three years ago, one of the ablest of French philosophers* published an elaborate volume in vindication of this doctrine. Less than a year ago an English translation of this work was issued in Edinburgh. In a preface written by the distinguished author for this translation, the following passages are found: "Great Britain has always been the classic land of final causes. It is there that natural theology originated, has been developed, and held its ground with honor down to our days. In our own age a great publicist and a great physiologist, Lord Brougham and Sir Charles Bell (both Scotchmen), counted it an honor to annotate the excellent work of Paley. Dugald Stewart, in his *Elements of the Philosophy of the Human Mind*, vindicated against Bacon the utility of final causes as a means of research, at least in the sphere of the natural sciences. What are called the *Bridgewater Treatises* have rendered popular, by a succession of scholarly studies, the argument drawn from design in nature; and recently, again, these remarkable works—the Duke of Argyll's *Reign of Law* and Prof. Flint's *Theism*—have anew called attention to this famous and indestructible argument."

Famous enough the argument is, but how foolish Janet seems to us pronouncing it indestructible in October, 1878, while in August, 1879, the editor of an American medical journal declares it wholly rejected. "We have changed all that," and the change has been very quickly and completely

---

Les Causes Finales. By Paul Janet. Paris, 1876.

effected, and the foolish superstition is at an end. The journal referred to states—"The logical necessity of assuming intelligent design in order to explain the adaptations of nature, is wholly rejected now even by many theologians."

Molière, in *Le Médecin Malgré Lui*, gave an example of another important change in the following:

Géronte.—"It is undoubtedly impossible to argue better. There is but one thing that I can not exactly make out: that is the whereabouts of the liver and the heart. It appears to me you place them differently from what they are; that the heart is on the left side, and the liver on the right."

Sganarelle.—"Yes; this was so formerly; but we have changed all that, and we now-a-days practice the medical art on an entirely new system."

Gér.—"I did not know that, and I pray you pardon my ignorance."

Sgan—"There is no harm done; and you are not obliged to be as clever as we are."

Of course we can not all be "as clever as" some scientific men get to be. King James remarked in regard to Lord Bacon's great work, "*It is like the peace of God, for it surpasseth all understanding.*" And so of some of this cleverness. Dr. Cowling, in the Louisville Medical News, Aug. 16, has this to say of the criticism:

"There is no danger of any one lighting up a superstitious fire along the American line, and not having the same promptly squirted on from the cold waters of the Philadelphia Medical and Surgical Reporter. This faithful watchman upon the towers of medical Asrael of course is not pleased with the President's address before the last meeting of the Association; that is, in so far as it attempts to prove any thing. 'The logical necessity of assuming intelligent design in order to explain the adaptations of nature is wholly rejected now even by many theologians,' says the P. M. and S. R. Why it should feel called on to assert this self-evident truth we do not see. All the world knows by this time that it was manufactured by Mr. Tyndall, with the help of a select company of American apprentices."

Corporal Punishment.—B. P. Marsh, A. M., M. D., Bloomington, Ill., has sent us the following, and requests that it be generally published by other journals:

"My attention has for a number of years been called to injuries caused by occasional cases of too severe or recklessly executed punishment of school children.

"Foremost educators, while not believing it expedient to prohibit corporal punishment, acknowledge that injury, injustice, and sometimes death even, do now and then occur from its use. These serious results may arise from fright or from concussion of the brain, produced by merely jerking the child about, or—the most frequent case—inflicting the punishment upon the child's head. No one form of punishment is so dangerous as boxing the child upon the ear. Not only is injury to the organ of hearing produced, but inflammation of the brain frequently follows, and death has been the result. In the family, this matter of injurious methods of punishment is not by any means beyond our influence, if we will but take pains to inform people upon the subject. If corporal punishment is allowed at all in schools, its use ought to be carefully guarded. No teacher should be allowed to punish a child by rudely jerking it about, by striking it anywhere on the head, or with any instrument whatever, except it be flexible and with smooth edges. These requisites are best fulfilled by a rubber strap with rounded edge. Moreover no punishment should be permitted except it be inflicted in the presence of a principal, another teacher, or a school trustee, as a salutary check upon undue temper or excitement. Every case of corporal punishment should also be reported in writing to the board of school trustees, stating the offense of the pupil and the manner and severity of the punishment. I have known the above rules, adopted by a board of school commissioners, to reduce the number of cases eighty-eight per cent. in one month, and the schools continued meanwhile even more orderly and satisfactory than before.

"I am about collecting statistics of serious and fatal injuries caused by corporal punishment, and I write this article to request all the readers of the *American Practitioner* to forward to me statistics and history of all cases that may have come to their knowledge. State the date, place, name of child, character of punishment and its results, also the offense for which the punishment was inflicted. Add other points, history, etc., if time and inclination suggest. I urge all to give the subject the little attention needed,—to write me the main facts at least of all cases they have known, and thereby make the report more valuable. The information thus obtained I will communicate through this journal."

DEATH OF DR. M. B. WRIGHT.—Dr. M. B. Wright died in Cincinnati on August 15th. This man of iron will, and apparently of iron constitution, who seemed to stand on his feet firm as a statue, then too with something of a statue's fixed proportion and with something of a statue's rigid lines in his face, has fallen. He had lived for nearly seventy-six years, yet many at fifty-five or sixty look older than he did.

For five years an associate in the Medical College of Ohio, and during the ten years that have elapsed since that association, holding frequent correspondence with Dr. Wright, there grew up between him and the writer a precious friendship now rudely and suddenly arrested. These letters were, on his part at least, delightful manifestations of kindly personal interest, sometimes genial gossip of men and things, and again graver thoughts on professional subjects, or on the profounder problems of human life. His last letter to me was written on the 31st of July. In it, in connection with the subject of evil in the world, he wrote as follows:

> "I have asked what have I done or left undone, that I should be thus punished. Is this a part of an original direct design, or is it a consequence of my own thoughtless creation? No one assumes to answer. After all, perhaps, I should not complain. My friends take occasion to remind me that paralysis has no where come upon me; that I can see to read and write without glasses, that my hearing is perfect, and that touch, taste and smell require no aid."

And yet with such perfection of physical senses, in scarcely more than two weeks he was dead.

The time is too short, the space too limited, to consider with any justice and completeness Dr. Wright's life and character: but this duty to the memory of my departed friend I shall endeavor to do at an early day.

Among the resolutions adopted by the staff of the Commercial Hospital, the following strikes me as being preëminently proper and truthful:

"*Resolved*, That as a teacher and practitioner he possessed great capabilities, and will be always regarded as one of the ablest men of his time."

He did, indeed, possess great capabilities as a teacher and practitioner. In his lectures he was clear, simple, strong. Whatever knowledge he had was thorough, not superficial. Without any special graces of elocution he could always interest, while he never failed to instruct a class. An old Latin proverb runs, *Cave ab homine unius libri.* If Dr. Wright was not a man of large reading and various culture, there was one of nature's books which he knew thoroughly, and that was practical obstetrics. He did his own thinking, his own observing, and had enough skepticism, if not to reject, at least not to accept that which he did not witness in his own experience. His prize essay upon "Cephalic Version," is one of the most important contributions to American obstetrics. It is more glory to have written that than to have invented some new form of forceps, or uterine speculum, or hysterotome.

As a man he was upright, just, generous, caring not for the accumulation of wealth, and so he died after fifty six years of work comparatively poor. There was enough of the positive in him to make him an earnest friend and a resolute foe. A man of great energy and fertile in resources, he was a leader, and generally led wisely and successfully.

At the grave's mouth the enmities begotten of the jealousies, the mistakes, the strifes and struggles of men, perish; the lips that are sealed in death can have cast upon them no reproach. And so Dr. Wright, who had been engaged in too many contests, too many prolonged struggles for hospital or medical college supremacies or possessions, not to have made many foes, will not have thrown upon his coffin a single stone, or resting upon his name a single stain. I knew him as an honorable, upright, just man, a kind friend, faithful in all circumstances of life—never a courtier, never a hypocrite, his words and acts always in harmony: and to his memory this grateful but imperfect tribute is given. T. P.

SYPHILIS: ITS TREATMENT AND CURABILITY.—Dr. T. S. Galbraith, Seymour, Ind., sends us the following communication, emphasizing the importance of certain points in the treatment of syphilis:

The poison of syphilis is only known by its effects. The persistent efforts of the microscopist and chemist have failed to determine its exact nature. However, recent investigations render it probable that the virus of syphilis is conveyed by means of degraded cells originally derived from healthy human elements, which in their changed condition are incapable of developing normal tissue, but possess the power of amœboid movement and proliferation. When normal germinal cells are brought in contact with those degraded by the syphilitic influence a similar degradation is imparted to them, and by the lymph channels the diseased cells are conveyed to the lymphatic glands, and after a variable period of incubation the entire system is contaminated; then a succession of symptoms follow, known as secondary or constitutional syphilis.

It is stated by excellent authority (Otis), that "the virus of syphilis has no erosive properties, and that germinal cells from one source or organism can not come in contact with those of an independent organism without a breach of tissue." If this be true, it is difficult to account for the ready propagation and general prevalence of the disease. We are prepared to admit that the syphilitic poison is not erosive, from the fact that the victim is usually ignorant of harm until the first incubation period has passed and the initial papula appears. But infection can certainly take place without a breach of tissue.

It is entirely probable that the vascular turgescence accompanying the venereal act is sufficient to admit the commingling of germinal cells, and contamination of a healthy organism either by amœboid or endosmotic action. All the secretions of syphilitic lesions and the blood during the active stage of syphilis contain degraded germinal cells, and are capable of communicating the disease. The active stage of syphilis is usually from one to two years, and much longer if untreated. The primary and secondary periods are attended with a peculiar cellular infiltration of superficial tissue and enlargement of the lymphatic glands. The various syphilides that appear on the skin and mucous membranes during the early stages of syphilis tend to pass away spontaneously, without leaving any visible marks of their former site or existence. But induration and hyperplasia of the lymphatic glands is the most common and characteristic indication of the active and infectious period of the disease. The tertiary or late manifestations of syphilis are characterized by gummous infiltration, usually of the deeply-seated tissues. No organ or structure of the body is exempt from this peculiar and destructive process. However, these dangerous and formidable lesions are not regarded as due to the direct action of the syphilitic poison, but are the result of a susceptibility imparted to the tissues by the virulence of the antecedent syphilis, and are excited or developed by extraneous influences. Secretions from these lesions are not infectious; neither can the disease in this stage be transmitted by inheritance.

In the treatment of the active stage of syphilis, mercury is the only known antidote. Jonathan Hutchison says that "if three grains of gray powder be given three times a day during the existence of the primary sore, the poison of syphilis will be destroyed and secondary symptoms will not appear." Dr. A. Fournier is of the opinion "that the *omission* of mercury during the secondary stage is the most important cause of tertiary disease."

The extreme views of eminent syphilographers may not be sustained by clinical experience, but that mercury in some of its forms is the most important remedy we possess in the treatment of the early stages of syphilis, is now generally conceded by a great majority of the most competent observers. But the preparation of the drug that is best adapted to each individual case, the method of administration and the time of its continuance, are questions of the greatest importance, and upon their solution will depend our success or failure in the treatment of syphilis.

General treatment with mercury should be commenced as soon as the diagnosis is positively made. And it should not be undertaken lightly: the patient ought to be impressed with the importance and necessity of a thorough and long continued course of treatment. The preparation of the drug that is selected is not material, but the proto-iodide is a good one, and one-fourth or one-fifth of a grain is a proper dose to begin with. The tolerance of the medicine must be tested in each case. It is a safe rule to obtain as near as possible the physiological action of mercury on the system, and at the same time avoid it. Experience has well shown that the best results are accomplished by the long continuance of mercury in small quantities; in that way its antidotal and alterative powers are fully realized, and its irritant and deleterious effects are avoided. Occasional intermissions may be allowed, but as a rule treatment should be continued for at least two years. If, at the end of that time, a careful examination fails to find any glandular enlargements or other evidences of active syphilis, treatment may safely be left off and the patient kept under observation for another year; during which time, if the disease has not been entirely eliminated, new symptoms will be developed and treatment must again be resumed. When syphilis is untreated or treated irregularly, a period of latency sometimes occurs which is difficult to explain, unless Virchow is correct when he says:—"The dyscrasia of syphilis is only temporary, and reinfection may occur from time to time from certain depôts in the body."

In no disease that we are called upon to treat is it so important that the strictest hygienic rules should be observed.

All vicious and irregular habits must be corrected; that great emunctory of the body (the skin) must be kept in the best possible condition. A warm bath, twice a week, should constitute a part of the regular treatment. Exposure to cold is especially to be avoided. I lost a patient a few months ago from syphilitic paraplegia, which I think was brought on by exposure to severe cold weather during last January.

Of the sequelæ or tertiary stage, I will only say that the disease known as tertiary syphilis is seldom if ever seen, except in cases that have been neglected or improperly treated. But when it does occur, we possess a sovereign remedy in the iodides, however. The disease in this form is not so amenable to treatment as the earlier stages; the prognosis is always more or less grave in proportion to the importance of the structures involved and the extent of the lesion.

TRI-STATE MEDICAL SOCIETY.—According to the announcement by Dr. A. M. Owen, chairman of committee of arrangements, the above young and flourishing society will meet in Evansville, Ind., on the second Tuesday of next November. The prospect now is that it will be a very large and interesting assembly of representative medical men.

MEDICAL ABSURDITIES.—Dr. William E. Brandt, Hanover, Ind., has sent us the following:

Dr. Parvin:—Inclosed please find a few prescriptions extracted from a book of great repute in its day, "Etmuller's London Practice of Physic, 1690." ("Shade of Luke! stomachs turn pale at thought of such rebuke.")

For the Strangury—"The cure in general is performed by astringents, especially the decotion of calamint, agrimony and mint in wine; the powders of galangal, aloes wood, myrrh, frankincense, gum arabic, and mastic. The most noted species are the *throat of a cock roasted*, pounded, and given to a dram in wine; the powder of a *burnt or calcin'd hedge-hog;* the powder called medulla saxorum; the inner tunicle of a hen's *ventricle*, which when dried becomes hard like horn;

the *fish found in the belly of a pike;* the powder of *a sow's womb;* the powder of *hogs' hoofs;* the powder of *dried mice;* and the *dung of a she-goat.*"

For a Polypus—"If a polypus have any tendency to a cancer, it ought not to be meddled with. If it be ulcerated, apply the water or ashes of frogs, powder of crabs, lead melted and dulcified, the crocus of steel, and such like."

For a defective ferment of the kidneys—"We exhibit the sharp saline diuretics, mixed with the temperate oily ingredients; especially the decotion of garlic heads, the seed of hedge mustard, given to a dram in wine, the juice of parsnips, the spirit and *salt of urine;* Amelungins's nephritic tincture, prepared from tartar, nitre, antimony, and the *solar flint stones;* the carminative spirit, the volatile spirit of tartar; the spirit of sal ammoniac, the volatile salt or distilled oil of amber; the spirit or juice of *earth worms;* the powder, juice, and infusion of *wood lice;* the infusion of Spanish flies in wine, or their diuretic essence, prepared with the tincture of tartar; *the infusion of horses' dung in Rhenish wine;* the *urine of a goat;* crab's eyes mixed with wine or vinegar; the decotions of red vetches, chervil, madder, or St. John's work; *the shells of hens' eggs*, or rather those of *ostrich eggs*, given to a dram, or dissolved in spirit of salt; the powder of snails' shells, dissolved in like manner."

HONORS TO THE MEMORY OF DR. CRAWFORD W. LONG.—On Friday, August 22d, Atlanta, Georgia, witnessed a most interesting event, namely, the presentation of a portrait of the late Dr. Crawford W. Long to the Legislature of Georgia. Mr. H. L. Stuart, of New York, was the donor, Senator John B. Gordon made the presentation speech, and that of acceptance was made by Col. Benjamin C. Yancey. It seems well established that Dr. Long, living in Jefferson, a small village in Jackson county, Georgia, in March, 1842, removed a tumor painlessly from the neck of Mr. Venable, the subject being under the anesthetic influence of sulphuric ether. Both in that year and in 1843, other similar experiments were made by Dr. Long.

THE AMERICAN PRACTITIONER.

OCTOBER, 1879.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

ON THE EMPLOYMENT OF THE CATHETER.

SUGGESTIONS FOR OVERCOMING SOME OF THE DIFFICULTIES IN ITS USE.*

BY CHAS. C. F. GAY, M. D.

Surgeon to the Buffalo General Hospital.

Gentlemen: Your attention has lately been called to cases of retention of urine, in some of which you have been witnesses to difficulties arising in the employment of the male catheter. These several cases have suggested the propriety of speaking to you this morning concerning the methods by which some of these difficulties may be met and overcome. Ordinarily the passage of a catheter through a normal urethra is a simple process, requiring neither tact nor skill. Before the discovery of anesthesia, John Bell affirmed that the introduction of a catheter "is often the most difficult operation in surgery." "My conviction is," says Gross, "that few men perform the operation well."

Anesthesia, as you know, has, in many cases, made quite easy an operation, the performance of which was, before its discovery, quite impracticable. With its use, however, you will encounter, in exceptional cases, trouble and perplexity enough to tax your patience to the utmost. Unless you have at your command the whole range of knowledge appertaining to the necessary manipulations, you will experience greater trepidation when, in the presence of friends, you approach your patient for the first time for the purpose of introducing the catheter than when, for the first time, you employ the obstetrical forceps in labor; indeed, your chances of success will be in favor of the latter. It is undoubtedly true, that the reputation of one surgeon has been lost and that of another made by success or failure in the use of the catheter.

---

* A Clinical Lecture delivered at the Buffalo (N. Y.) General Hospital.

Neither is it enough for you to know how to pass a catheter well. You should know also how to use the instrument so as not to abuse it. Infliction of pain is to be avoided. It is a reproach to affirm that the practice of the surgeon's art necessitates in every case the infliction of pain. Pain, as far as possible, is always to be avoided, whether in the amputation and dressing of a limb, repair of broken bones, or manipulations upon the urethra. I once saw a surgeon, who was about to use a catheter, grasp it in such a forcible manner with his whole hand, as to give one the impression that the instrument had to go through somewhere and somehow, regardless of consequences. If one had no anxiety, when witnessing rough manipulations, concerning the integrity of the urethral mucous membrane, his fears at least would certainly be excited for the safety of the instrument. You are not to handle the instrument as if it were a tamping-iron, nor manipulate the urethra as if it were, as Hamilton says, a rifle-bore. You are to bear in mind that the urethra is said to be a continuous closed valve (Thompson); that its size is conditioned by that of the penis (Otis); and you are to remember that the mucous membrane lining the urethral walls, with which your instrument comes in contact, is of extreme tenuity and sensibility; it has been likened in structure to the conjunctiva. Syncope may be induced by rapid entrance or withdrawal of the instrument, and chills and fever may occur from the same cause. To introduce a catheter skillfully, often requires the utmost coolness and self-possession; should you lose either or both, you had better desist, for the time being, from making further trial, and wait until you regain possession of these faculties. On the whole, therefore, I regard this subject as not so elementary that teachers may pass it by in silence; nor has the time passed, nor yet come, when a well written monograph upon the subject of difficult catheterism would be misplaced in the hands of the general practitioner.

In 1857, Alban Goldsmith, M. D., published a small but valuable work upon Diseases of the Genito-Urinary Organs, which I can recommend you to study, in which the author gives some useful hints and directions upon the employment of the catheter. I early derived much advantage from reading this work, and if it be not out of print I advise you to procure a copy of it.

I am not to trouble you this morning with organic stricture cases. There are other obstructions besides strictures to prevent the easy passage of the catheter—such, for instance, as hypertrophy of the prostate gland, prostatitis, urethrismus, the triangular ligament, coagulated blood, muco-purulent discharge from cystitis and pyelitis, and tortuous and false passage, etc. Here is a patient I show you, a man past middle life, who has enjoyed good health until recently. He now finds himself unable to pass his urine, and therefore the employment of the catheter has become a necessity with him. He has albuminuria, and pus is also found deposited in his urine. He has pyelitis. At first the catheter could not be introduced unless anesthesia was induced, but we succeed at present without it. Every size, almost of both flexible and metallic catheters, was employed in vain; until at length the method which I show you was adopted, and has since been the only method employed to draw off this man's urine. You will observe that the instrument (a No. 10 silver catheter) is arrested about midway in the progress to the bladder. It seems to meet and does meet with some obstruction, and will go no further.

I now take a small glass syringe filled with glycerine, a quantity of which I inject into and through the catheter while it is *in situ*, and at the same time make gentle pressure upon the distal extremity of the instrument, which is observed to move forward. But it again meets with obstruction, and I again inject the glycerine, and, as you see, by repeating the injections three or four times while pressure is made, the instrument finally passes into the bladder without causing the patient the least degree of pain. Either glycerine, olive oil, or some mucilaginous fluid or even warm water, may be used for this purpose. The oil acts in a two fold manner, namely, as a dilating and lubricating agent. I have been equally successful in other cases with warm water, which has been injected with sufficient force to dilate the urethral caliber a short distance in front of the vesical extremity of the catheter and allow it to advance.

It would be foreign to my purpose to occupy your time in the discussion of questions relating to the pathological condition which made catheterism an absolute necessity. I merely direct attention to the fact of the presence of albumen and pus, and to the method of relief of the urinary retention, and leave the subject for your after reflection and study.

This case is quite unlike another which you have seen in the surgical ward, in whom the catheter was readily passed, but when passed, no urine escaped through it, simply because the eyelets of the instrument became filled and clogged with coagulated blood. The patient was in much distress on account of accumulation of urine in his bladder. Attempts had been made to draw off the urine previous to his coming into the hospital. Instruments of different sizes were now successively introduced into the bladder, and not a drop of urine obtained. A gum elastic catheter was next used, with the wire stylet long enough to reach the vesical extremity of the catheter. The wire was then made use of to break up the coagulum. So soon as this was done, the urine began to flow through it, the bladder was soon emptied, and there was afterward no further trouble.

I am reminded by this case of one wherein the patient had procured an instrument, and tried in vain to use it upon himself for retention following a debauch. He had made a false passage, and when called to him found that he had bled quite profusely during his futile attempts to draw off his own urine. I made several trials to catheterize him, but the instrument would invariably pass down near the neck of the bladder, through what I believed to be a false passage, and nothing but blood escaped. Had I employed force, the instrument would have passed out and beneath the bulbous portion of the urethra, and entered the bladder back of the prostate gland. This would have been followed probably by infiltration, septicemia, and death. I directed this man to stand up and try to pass urine, which he did after saying it would do no good, as he had stood up repeatedly and could not make a drop of water. But simultaneously with his straining to urinate, I withdrew the instrument, when, to the patient's surprise and comfort, he succeeded in evacuating his bladder.

If I am the first to make trial to draw off a man's urine, it annoys me exceedingly to find blood escaping. The instrument should always be used with such gentleness and care as to make it impossible to inflict sufficient injury upon the delicate mucous membrane as to cause the visible presence of blood. But you will sometimes encounter hemorrhage without abrasion of the mucous membrane, provided the prostate gland is enlarged and inflamed. In case of prostatitis, you will find the soft rubber catheter of service. To aid in its introduction, Dr. Otis has devised "a new prostatic guide," which I have not yet had occasion to use. Squire's vertebrated or prostatic catheter is an instrument so ingeniously contrived as to make a section of a metallic or silver catheter flexible. It is valuable in cases of enlarged prostate, and I commend it to you. You ought to be provided with these instruments. I do not find them, however, indispensable, since, with the finger in the rectum to direct the extremity, I rarely fail to pass the gum elastic catheter, without the stylet, or silver catheter properly curved, whenever a large prostate exists.

Whenever tortuous or false passage is present, I have more often succeeded in passing a catheter after I had first passed a nickel-plated No. 12 to No. 24 metallic sound (English scale). This sound, if of the proper curve, will find its way into the bladder by its own weight. When, upon its removal, a silver catheter will also find its own way. I have, in many cases, relieved retention in this manner. Indeed it has become a fashion with me to try the sound first in many cases where any doubt exists in regard to the easy passage of the catheter. If the sound is not at hand, I try the largest silver catheter at my command. You will usually get on better with a large instrument; the beak of which is much less liable to be caught within the folds or lacunæ of the urethral walls. I use the virgin silver catheter whenever I can. It can be bent to any curve without breaking. I lubricate it with cosmoline; hold it loosely between the thumb and finger; pass it into the urethra till it reaches the arch of the pubes, when the handle ought to lie obliquely across the left groin. It is then to be gently raised toward a vertical position, and in a line with the body. The tip of the forefinger will now be sufficient to hold and guide it into the bladder. It may, however, be necessary to make slight pressure with the fingers of the left hand upon the perineum, or with the forefinger passed into the rectum.

You will find in your practice an occasional case of retention, to relieve which with the catheter will resist every effort you make, and exhaust every resource at your command, and then you are justified in making puncture of the bladder above the pubes or through the rectum. But in a case of this kind the catheter will still be of service, as I shall show you.

Some of you will remember the patient who came into the hospital some time ago with traumatic stricture. He had been kicked on the perineum, and was unable to void his urine. His bladder was much distended; he was suffering greatly from desire and inability to urinate. Physicians had tried to pass the catheter before he came into the hospital, and undoubtedly false passage had been made by these repeated efforts. My house surgeon also made protracted trial to introduce an instrument. At my visit the patient was directed to be etherized, and when he was fully brought under the influence of the anesthetic, I tried and signally failed to pass even a filiform bougie. I made puncture through the rectum at once, using a long curved trocar and canula, in the following manner: The forefinger was introduced into the rectum, and the most salient portion of the bladder sought for. Guided by my finger, the trocar was passed along until its point reached the *vésical trigône*, where it was thrust through into the bladder, and this viscus evacuated The canula remained *in situ.* A small flexible catheter was now passed through it, and the canula withdrawn over the catheter, leaving the catheter in the bladder and retaining it there. For the next two days urine passed through the catheter, but soon after this time it was observed to pass in small quantity through the urethra. In another day, therefore, the instrument was removed, the urine continuing to pass by urethra; and in a few days the stream was of sufficient volume to allay further apprehensions, and the patient was discharged.

In this instance, I had good reason to prefer puncture through the rectum to aspiration above the pubes. I believe the operation is attended by very little risk, and have been led to regard the choice of this locality with much favor. The alternative of puncture through the rectum ought to be accepted and encountered rather than to run the greater risk of a too forcible employment of metallic instruments through a resisting urethra, with its concomitants of false passage and urethral fever; the former of which is easier to make than mend, and the latter easier to provoke than subdue.

BUFFALO, N. Y.

DUCHENNE'S DISEASE.*

BY W. J. SCOTT, M. D.

L. B., male, aged forty-two years, has been complaining for three years; married; has not had syphilis. At first had pains in lower extremities; not much pain now. Appetite good; has control of excretions; the urine sometimes slow to start; bowels constipated. He has now palpitation of the heart; he feels a constriction around the chest and abdomen. You notice by his walk that locomotion is imperfect; and by the æsthesiometer that sensation is remarkably blunted; also by the ligamentum patellæ test that reflex impressions are almost entirely obliterated.

To understand these phenomena, we must take into account the anatomy of these sets of nerves. The function of the anterior and posterior sets are not only implicated, but the reflex sets. The afferent and efferent nerves (Marshall Hall's) are also involved to such extent that scarcely any response is made by them. If Dr. Murray crosses his legs, and the patellar ligament is tapped, you see how quickly you get the response on the muscles, so as to move the leg by such a jerk that he is unable to control it. Now make the same experiment with the patient, and there is no response.

What makes this difference? That depends on a pathological condition. The one is healthy; the other diseased.

There is yet another set of nerves involved in some of these phenomena. The sympathetic nerves become involved soon in the history of such a case. It is, I conceive, impossible to have any one set of these important nerves seriously diseased without the other becoming so, sooner or later.

I may with profit give a little of the history of this affection. It is called Duchenne's disease, because he first described it definitely. Afterward Trousseau described this condition classically. But his description does not include the first stage of the disease, which I imagine is the important stage therapeutically—Duchenne's and Trousseau's description of sclerosis of the cord. But in all these cases there is an antecedent stage—hyperesthesia—in which the patient suffers the fulminating or lightning neuralgia pains, during which the patient is often treated for rheumatism without benefit. Thus as the sympathetic apparatus become implicated, he is treated for dyspepsia and liver complaint, with the same success. Thus he has heart troubles which need special attention, with no better success, unless the lesion is detected. Thus you see that often the lesion is not easily recognized in the first stage.

---

* A Clinical Lecture delivered at St. Vincent's Hospital, Cleveland, Ohio, August 4, 1879. (Reported by Dr. Aesch.)

I believe most of the early cases mentioned depended on venereal excesses. Now we know that the cases often depend on other exciting causes, as long employment on railroads. Sometimes it may be questionable if both these may not have conjoined causes. In the first, however, the sensory function is the one affected more especially; and, on the other hand it will be the motor column which is first affected, then the other speedily follows, and we have the symptoms of sensory affection, and either or both will soon disturb the sympathetic and reflex functions, so that the pathology is complex and not easily followed by the beginner; yet with a knowledge of the anatomy the description is not very abstruse, but without this knowledge you can not understand it.

The therapeutics are not promising. If you refer to Trousseau, you will see that his medication amounts to nothing; nor will yours if you do not recognize the disease in the stage before his description begins. He describes our case here well (as sclerosis), and the sulphur-bath treatment may be as good as any. In this stage the disease is a progressive one. Some points are in a stage of chronic inflammation, with gradual exudation occurring, while others are more acutely affected, and in this way the indications for treatment can not be well met. I apprehend, for this reason, that all plans of treatment are so unsuccessful in results.

Electricity is recommended by good men as the remedy even in this stage. What has experience shown? In the majority of cases the application does more harm than good. The interrupted current, in my observation, has always done harm; so that in the hands of people who give electricity for all kinds of diseases with giggling machines, and give it in such a way as to jerk the joints out of place and find the tender spots, always does harm. Often I have seen people treated in this way to their detriment, and this by persons who say that they have studied the subject and know all about it, and the man who would not use it in nervous diseases is not up to the times. Oh, yes, would you expect such advantage during the hyperesthetic stage? Not by any means. Then during the anesthetic stage with exudation, you need not expect much from this agent. If applied at all, the interrupted current should be used and applied with moderate intensity. Sometimes, when the muscles become atrophied for want of nerve influence, by applying the interrupted current to them in such a way as to produce contraction, advantage may be gained to the nutrition of the parts affected. But when all the ganglia along the spine and into the brain become hyperesthetic, as they are in the first stage, it is not strange that a peculiar set of symptoms should manifest themselves, and give plain indications for treatment when correctly interpreted. And again when these same ganglia become anesthetic from perverted or imperfect nutrition, or by subacute inflammatory processes with exudation, it is not strange that a different class of symptoms should present themselves, and other indications should be present for therapeutic management. Without this distinction in the pathological condition, the therapeutic application will necessarily be illy done. How often are these distinctions made? Sometimes it is not easy to make them, or to tell where one ends and the other begins. Indeed, in the very nature of the affection, to some extent they are both present.

Lately we have had some new terms introduced in this class of diseases—not so much in this as in others similar in some respects. For some affections of women, we often see the term neurasthenia, meaning want of nerve power, from its derivation. Then we should have another, meaning the opposite, as neurosthenia. Now I doubt whether these terms convey so full and exact a meaning as the others to the man who can see the force of their derivatives. We are all acquainted with the meaning of esthesia and anesthesia.

The indications for treatment in the hyperesthetic condition is to reduce the congestion, to diminish sensibility, and as far as possible prevent exudation; and, if this is possible, to prevent the second stage.

Now you take the class of remedies which will accomplish this best, and clinical experience will show that you do most for the patient. What are these? At the head of this class stand the bromides of potassium, sodium, lithium and ammonium — the potassium bromide being the best. The effect of these may be assisted by digitalis, belladonna, hyoscyamus, and ergot. But when the ganglia cease to be sensitive, and there is some exudation, then it seems to me that potassium iodide, with one of the others, will fulfill the indication best; for it acts better as a detergent in producing absorption of foreign material, while the others act on the sympathetic more directly. And when the anesthetic stage has fully occurred, we use with advantage the more direct nerve stimulants and nutrients, with counter-irritants. The therapeutics of these conditions should be governed by the pathological condition, if we expect to benefit the patient by medication. But how will the practitioner do this if he has not the pathological knowledge? I hope that I have impressed these ideas on you in such a way as that you will remember them, and see that this is not a theoretical view of the subject. The early use of electricity, or indeed the use of it at any stage, unless done on pathological principles, is followed by bad results. The treatment by hot baths or by cold douches has not been followed by good results. Indeed, we would not expect them to be followed by benefit unless applied with skill, precaution, and knowledge of the conditions which are often overlooked, or not possessed by those using these agents.

These questions in therapeutics apply equally to all conditions of the cord, whether the principal part of the lesion be in the posterior, anterior or lateral columns of the cord. The symptoms may differ materially, but if you interpret them by function, you will readily see that precisely the same pathological condition ought to be present, and consequently the same rules of practice will apply in these cases.

The mineral waters have been recommended in these cases, but the use of them has not been successful in relieving the disease. No set course of practice can be depended upon in a number of cases, for the reason that each case must be studied and then treated from the indications present. I have relieved many of these cases greatly upon this plan of treatment:—First discontinuing absolutely any exciting or predisposing cause, and then giving the remedies I have indicated, according to the conditions developed.

CLEVELAND, OHIO.

FATAL PUERPERAL CONVULSIONS.

BY WILLIAM L. WHITTED, M. D.

On March 24, 1879, I was called in haste to visit Mrs. A., who was in the ninth month of pregnancy, and laboring under a severe attack of convulsions. She was a tall lady, nervous-lymphatic temperament, fair skin, blue eyes and light hair, about twenty-one years of age, the mother of two children. After her first labor, about three years ago, she had severe convulsions, during the ninth and last paroxysm of which her attending physician, I learn, pronounced the case hopeless, but after a long sleep she became conscious and began to improve. I attended her during her second labor, which passed off without any untoward symptoms, and she was well in a short time. She had had two or three very hard convulsions before I arrived. The paroxysms were followed by a deep sleep, characterized by stertorous respiration. These sleeps were succeeded with nausea and efforts at vomiting. When she became sufficiently conscious to speak she complained of great blindness. She had but two paroxysms after my arrival. I administered hypodermically one fourth of a grain of morphia, and followed it shortly with an injection, per rectum, of bromide of potash and chloral, one drachm of each. She slept soundly for several hours, and the disposition to convulsion abated; but the severe cephalalgia remained, accompanied with amaurosis. She was annoyed with these symptoms more or less, especially at night, up to the morning of the seventh day of April, when I was called to attend her in her confinement.

The patient's pulse during this time ranged from sixty to eighty, rather oppressed, face flushed, pupils dilated, respiration normal. I found vertex presentation, the head low down in the pelvis, the os dilated to the size of a half dollar, and the pains of labor recurring regularly. The child was delivered in two hours after my arrival, and the placenta followed soon after. I congratulated myself that the crisis was over without the dreaded convulsion; but in this I was disappointed.

About three o'clock on the following morning I was called again to see her, as she had had another slight convulsion. I found her rational but rather stupid, and still complaining with severe headache and blindness. I left a prescription of bromide of potash and chloral, which had succeeded before. I was sent for again at one o'clock in great haste—the messenger stating that she had a convulsion at nine o'clock, and another at twelve o'clock, when they sent for me. I found her apparently *in articulo mortis.* The convulsion had lasted, with slight remissions, for three-quarters of an hour. The face, hands, and fingers were livid; I could feel no pulse; pupils dilated. I let her inhale a small amount of chloroform, and a slight improvement was manifested. When a disposition to a return was apparent, the chloroform in small quantity was reapplied, and this had the effect to stay them. But the circulation was still unimproved, and dissolution seemed imminent. I thought I might improve the circulation by giving hypodermically one-fourth of a grain of morphia with atropia in small dose, which I at once administered. In a short time the lividity began to abate, and the capillary circulation at least was improved, yet the radial pulse was imperceptible. The carotid beat at the rate of one hundred and forty to the minute. A deep comatose sleep succeeded, with slow, heavy, stertorous respiration of eight or ten to the minute.

As soon after the convulsions had ceased as possible, I introduced my hand into the vagina and removed quite a quantity of clotted blood, which filled the vagina and os uteri. This done I introduced a catheter and drew off about a pint of urine. The temperature of the body gradually rose, and the surface heat was considerable; the pupils were moderately contracted. In the course of three or four hours the respiration became more frequent and more natural, but the condition of the pulse remained the same—the head hot and the carotids bounding. I sponged the head with cold water, and administered tincture of aconite and tincture of digitalis in small and frequent doses. Small quantities of cold water, and occasionally milk, were administered with a spoon.

I remained all night with her, but her condition was much the same on the following morning, save that she could be aroused sufficiently to open her eyes and groan, and utter a few words, yet she seemed entirely unconscious. The breathing was more natural and easy, the circulation some slower, yet the radial pulse was but faintly perceptible—very much in the same condition as when I first saw her on the day previous. I again introduced the catheter and drew off about one quart of urine.

I called again at eleven o'clock; found her breathing much easier, more natural and more easily aroused—quite the same. I had the vagina well cleansed with warm water, clean linen put upon her body and bed, and everything arranged for the welfare of the patient that could be. Her tongue was moist, the skin moist and more natural to the touch, and she would swallow water, medicine or nutriment, when put to her lips. The countenance wore a more natural expression, and the capillary circulation in the face was good as well as the hands, yet under the finger-nails the lividity remained to some extent. The feet were warm, and from every indication, save one, there seemed room for hope. The action of the heart was much the same—at all events had made no improvement. I tried a little brandy, but fancied it did no good. I had prepared for her some beef essence, and administered this with cream every two hours, and still continued the digitalis without the aconite. I also gave her, for the purpose of giving tone to the nervous system and improving the functions of the spinal and ganglionic nerve centers, the following:

℞ Quiniæ sulph , ... gr. xv.
Fluid ext. ergotæ, ... ʒ iij
Fluid ext. belladonnæ, ... ʒ ss. M.

Of this I directed a teaspoonful be given the patient every three hours. I remained with her about two hours, and before I left I noticed that her respirations were interrupted with frequent sighings or long inspirations. I was now led to believe that some grave lesion of the base of the brain existed. I left her with instructions to give me information if any change of importance took place.

In about four hours from that time I was informed that she was again breathing slow and hard, with the same stertorous sound which took place after the convulsions. I now abandoned all hope. I went to see her on the following morning early, and, as I expected, found her dying. She died by apnea, the heart beating several beats, full and strong, for thirty seconds after respiration had ceased.

In reflecting upon this case, I am led to ask the question as to the character of the convulsions. Were they uremic? The muscular system was not agitated as greatly as I have generally seen in puerperal convulsions, but partook more of the epileptic character. The amaurosis which supervened upon the first attack, and the persistent cephalalgia, with the final apoplectic coma which followed in the wake of the last terrible convulsion, impressed me with the belief that uremic toxemia was the cause.

ELLETTSVILLE, IND.

REMARKABLE DERMOID OVARIAN CYST, WITH BILIARY CALCULI, ETC.*

BY R. M. DELZELL, M. D.

Mrs. Mary J. High, wife of Nathaniel High, White county, Ind., married at the age of twenty-one years, gave birth to six children within ten years. Health good during her child-bearing period, and for fifteen years afterwards. During the latter period menstruated regularly, and weighed on an average two hundred pounds. At the age of forty-seven, while riding in a hack, she received a jolt which caused pain and inflammation in the lower abdominal region. From this time she was never well. She applied successively to Drs. Potter and Martz, of Hamilton, Ohio; Dr. Mussey, of Cincinnati; Dr. Kümbler, of Seven Mile, Ohio; Drs. Strother and Washburn, of Lafayette, Ind.; Drs. Hood and Patton, of Remington, Ind.; Drs. Didlake and Grant, of Walcott, Ind., who respectively diagnosed and treated her for "false conception," "derangement of the liver," "liver disease," "general derangement," etc. At the age of fifty-six she died.

I learn from her husband that during her ten years' decline, she almost always had pain in the abdomen, especially in the right iliac and pelvic regions. She said "her intestines had grown fast;" had pain in her back and shoulders; had frequent attacks of "bilious colic;" had "spells" so severe that she would become semi-unconscious and froth at the mouth, and would fall down if not supported. These spells always began with the colic, which came on very suddenly. Had to pass water very frequently, and in small quantities. Suffered much with headache and constipation. During the last few months became much bloated—first in her feet and legs, then the mischief became general. The dropsical symptoms became so marked that the trocar was twice used, but without "getting water." It was thought by some of her late attendants that there must be fluid in the abdomen, but that it was enclosed in cysts. Her great corpulence and the amount of infiltration made a diagnosis very difficult.

---

*Read before the District Medical Society of White, Newton, Jasper and Benton Counties, Ind. (Published by request of the Society.)

I saw her for the first time on the evening she died, and with Dr. M. T. Didlake, of Walcott, made a post mortem examination, at which the following facts were ascertained: We found the abdominal walls very thick, much infiltrated with fluid, and studded with masses of soft, gelatinous, lead-colored matter. The intestines were firmly adhered to the abdominal walls in the right iliac region. The anterior surface of the bladder was firmly adhered anteriorly, and its capacity much lessened. The liver was enlarged to near twice its normal size. The gall-bladder was full but not distended; its walls thickened, containing two calculi—one as large as a quail's egg, the other one-fourth as large. The surfaces where the calculi were in apposition were worn smooth as glass by their long friction upon each other; and from several similar facets on these we conclude that numerous other calculi have existed there, but had been discharged. The uterus was very solid, and the uterine canal entirely obliterated. The right ovary was normal, and the fallopian tubes injected. The left ovary had degenerated into a dermoid cyst about the size of a ten year old boy's head. The walls of the cyst were thin, and well supplied with blood vessels. The cyst was filled with a mass of semi-fluid, grayish matter, and a large quantity of detached hair. Near the base of the tumor was quite a patch of dermal tissue, out of which grew some small hairs. Adipose matter was abundant throughout the abdominal cavity.

Our theory in regard to the cyst is that there had been an ovarian conception, and this dermal tissue was the result, and that for years it had been growing and casting off the hair with which it was partly filled. I give the history of this case at some length, on account of the difficulties that so often defy and render futile our attempts at a diagnosis, and recommend more thorough examination into the pathological possibilities that may be mingled with some two hundred pounds of humanity. The uterus and its appendages, including the cyst and its contents, the gall-bladder and the calculi, were exhibited to the Society, and the case discussed. The specimens are now in my possession.

NOTE.—The names of physicians who had attended Mrs. High, as well as her own name, are inserted in full at the request of her husband, so that should this report fall into their hands in your Journal, they will probably remember the case. R. M. D.

REYNOLDS, IND.

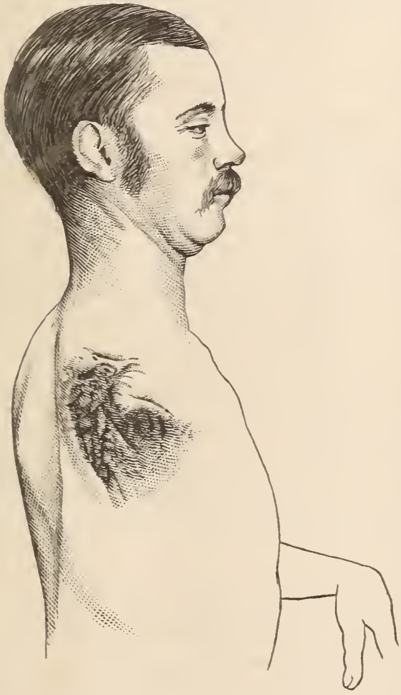
SPONTANEOUS AMPUTATION OF THE SHOULDER-JOINT.

BY JAMES I. ROOKER, M. D.

I am indebted to the patient and his father for the facts in the following case, which go to show what nature can sometimes do when left to herself:

At the age of fourteen, A. K. W., some fourteen years ago fractured his forearm near the lower part of the middle third. The fracture was reduced by Dr. L. S. Campbell, the family physician. On the evening of the second day there was slight delirium, with incipient gangrene below the seat of the fracture, and inflammation extending to the elbow. On the following morning the arm was swollen to the shoulder. The attending physician, in consultation with others, determined not to amputate, owing to the increasing gangrene. The line of demarkation forming about the fifth day extended to the spine of the scapula, laying bare the bone and exposing the acromion process, and involving the pectoral muscles.

In about two weeks after the consultation mentioned above, another consultation was held, and it was again decided to let nature continue her work. The condition of the poor boy at this date was deplorable; the discharges from the decomposing arm were profuse, and so poisoned the atmosphere of his room that it became unbearable. Wearied of his continued and intense suffering the patient courted death, and at his own request his coffin and burial clothes were purchased and placed within his room. The bones which were exposed soon exfoliated — the spine of the scapula and the acromial extremity of the clavicle coming away.



The annexed woodcut, taken from a photograph kindly furnished me by Mr. W. on the first of August last, will give a very good idea of the extent of injury, although it occurred over fourteen years ago. There is but a small amount of the body of the scapula remaining, the integuments being closely connected to it; the healing process soon covered up the exposed surfaces. Entire recovery was effected in about three months from the date of fracture.

In closing this report, I may say that the father of the young man now resides at Zionsville, Boone county, Ind., and the patient at Carmel, Ind., where the fracture and treatment occurred in October, 1865. He is at present a member of the junior class of Purdue University, and bids fair to live a long and useful life; and for all these things he is certainly but little indebted to the doctors.

Noblesville, Ind.

LECTURES ON THE SURGERY OF THE FACE.*

BY FRANCIS MASON, F. R. C. S.

Surgeon and Lecturer on Anatomy at St. Thomas's Hospital; Hon. Fellow of King's College, London.

LECTURE II.—PART II.

Fracture of Lower Jaw.—Fracture of the lower jaw most usually occurs between the lateral incisor and the canine teeth, this situation being perhaps the weakest part of the bone. The inferior maxilla may, however, be broken in other situations—at the symphysis, the angle, or at the neck of the condyle. An interesting case, from a diagnostic point of view, in which the neck of the condyle was fractured, is recorded by Mr. T. Holmes. In this example there was displacement of the lower fragment into the meatus auditorius externus, with serous discharge from the ear. The case was interesting, as showing the source from which the sero-sanguineous discharge may come, whether it may depend on a fracture at the base of the skull, or whether merely from a fracture of the external auditory meatus.

Fracture of the neck of the jaw by *contre-coup* is still more rare, yet such a case has been described by Dr. Cockburn, of the Royal Engineers. The injury was caused by a blow of the fist, received at the left side of the face. The least attempt to open the mouth caused much pain at a point close to the tragus of the right ear. It was easy to guess the nature of the injury, and it required but little manipulation to detect a simple fracture of the condyloid process of the right side, at a point very close to the insertion of the external pterygoid muscle. The fracture was put up in the usual manner, with a splint of gutta percha molded to the lower jaw, the usual chin-sling bandage, with a piece of cork between the teeth. The case did perfectly well.

---

* Delivered at the Medical Society of London, January, 1878.

Fractures of the lower jaw, as a rule, unite most perfectly, and however great the primary displacement may be, experience proves that the muscles resume their harmonious action, and in the end a most satisfactory result is obtained. In some instances, however, the bones unite very irregularly: thus, in a case of this kind, Mr. Bickersteth, of Liverpool, had to divide the bone with a saw, and then nailed the parts together with small brass pins.

The plan of fastening the broken ends together with wire passed over the teeth is of ancient date, but the wire so placed is very apt to slip. Mr. Thomas, of Liverpool, speaks highly of a plan he has successfully adopted of boring a hole with a drill on each side about a quarter of an inch from the fracture. Through these holes a wire is passed, and twisted in the form of a coil. The immediate effect in one case was that from the first day the patient expressed himself as able to use the jaw.

Another plan is that practiced by Mr. Wheelhouse, of Leeds, and represented in the diagram I show you. Two holes are bored with a drill through the substance of the jaw-bone, one on either side of the fracture. Through these holes two pins, having flat, circular, and perforated heads, are passed from behind forwards, and their points bent in opposite directions. The perforated heads are then threaded with a good stout silk ligature, which is brought forward over the teeth, and a figure-of-8 suture made round the reversed ends of the pins. Mr. Wheelhouse informs me that he has adopted this plan in one other case with success.

And, lastly, although I have not yet had an opportunity of testing it, I take the liberty of referring to a simple plan of uniting broken bones, which I successfully employed in 1871, in a case of ununited fracture of both bones of the forearm, an account of which is published in the Medico-Chirurgical Transactions. This method might, I venture to think, be advantageously used in suitable cases of fracture of the lower jaw. Its principle is well illustrated in the woodcut (Fig. 1), which represents it as applied to one of the bones of the forearm. It will be perceived that it is nothing more than the twisted suture, and that by withdrawing the needle the wire or thread is of course released. In adopting this method I imagine that the risk of damaging the bone is very slight.

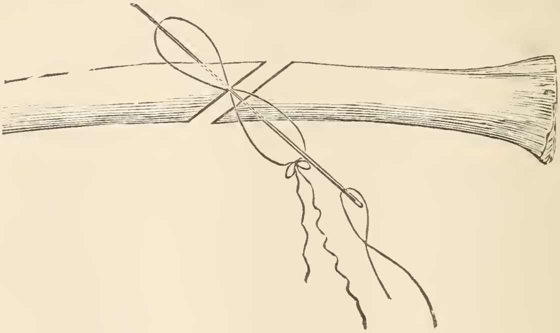


FIG. 1.

Mechanical apparatus for keeping the fragments together have been suggested by Mr. James Salter, by Mr. Gunning, Mr. Berkeley Hill, Mr. Moon, and by others.

In those rare examples in which bony union fails to take place there is abundant scope for ingenuity on the part of surgeons practicing dental surgery. Thus, Mr. Napier has furnished me with the particulars of a case of ununited fracture of the lower jaw which was sent to him by the late Sir William Fergusson, in August, 1867. The patient had been frightfully wounded during the siege of Lucknow, and besides having the lower jaw fractured in three places, had also a large portion of the superior maxilla carried away by a cannon-ball. Exfoliation to a considerable extent took place in the lower jaw, which, together with the loss of many teeth, caused an ugly and inconvenient contraction. There was no bony union whatever, but Mr. Napier so constructed an apparatus as to completely restore the power of mastication.

Permanent Closure of the Jaws..—In all cases of permanent closure of the jaws in which the lower jaw is fixed by cicatrices, whether caused by injury or by disease, the mere division of the cicatricial band is seldom sufficient to effect a complete cure, for the wound heals rapidly, and the cicatrix, as a rule, becomes even more dense than before. In operating on such cases, Mr. Callender suggests that after the free division of the cicatrix a portion of the alveolar border, together with the teeth, should be removed.

The division of the masseter muscles has been adopted in certain cases, both subcutaneously and by a submucous method through the mouth. The operations that meet with most favor at the present day are, first, that proposed by Rizzoli, of Bologna, in which the bone is simply divided; and, second, that practiced by Esmarch, which consists in removing a portion of bone. Esmarch's operation has been performed by Mr. Mitchell Henry, Mr. Barnard Holt, Mr. Heath, Mr. Lawson, Mr. MacCormac, M. Richet, by myself, and other surgeons. Most of these cases have been published, and I therefore need not detain you further than by saying that the operations were undertaken either on account of a dense cicatrix existing between the jaw and the cheek, the result of injury or disease, or for anchylosis of the temporo-maxillary articulation. The case on which I operated belonged to the latter class, and the joint on one side only was affected. The patient was a woman aged twenty-nine, who thirteen years previously had scarlet fever. Abscesses formed in the temporo-maxillary region, and she recovered with fixed jaws. A horizontal incision was made, about two inches in length, in the soft parts under the body of the jaw on the right side; the soft tissues were then separated from the bone, and an opening made into the mouth between the teeth and the cheek. A narrow saw was applied vertically in the space between the first and second bicuspid teeth, and the bone divided with the help of the cutting forceps. After this section the left side of the jaw was found to be freely movable, but the right side was firmly fixed. A piece of bone nearly an inch in length was then removed from the right or anchylosed side. There was no hemorrhage worthy of remark, and the wound was closed with silk sutures. She unfortunately had an attack of erysipelas which retarded her progress considerably, but the result was that when she left the hospital she could open her mouth for about three-quarters of an inch.

Dr. Maas relates a case in which there was bilateral anchylosis of the jaw. The patient was a man aged twenty-seven, who had scarlet fever when he was seven years old, and since the age of ten he had not been able to move the jaw at all. The secondary dentition was attended with great difficulty in the removal of the milk teeth, and the new teeth were for the most part displaced laterally. Herr Middledorpf operated on the right side, according to Esmarch's plan, with good result, and Dr. Fischer about four months after operated on the left side with great improvement.

It is seldom that an opportunity is afforded of examining the pathological condition of the parts after operation, but M. Boinet reports one such example. The patient was a little girl who had immobility of the lower jaw following gangrene of the mouth. Rizzoli's operation was performed, and matters appeared at first to go on well, but at the end of three months the divided portions began to unite, and in eight months there was complete consolidation. M. Boinet then performed Esmarch's operation, removing a wedge-shaped piece of bone, with the base at the lower border of the jaw and the apex at the alveolar ridge. The operation was performed in June, 1863, and six weeks or two months afterward the patient could eat any kind of solid food. In the beginning of September, 1866, she died of phthisis, having up to the time of her death retained the mobility of the jaw. On examining the bone, it was found that there was a false joint between the divided portions, and there was an arrest of development of the bone and atrophy of the muscles inserted into it.

Foreign Bodies in the Nose and Ears.—Foreign bodies, such as cherry-stones, locust-beans, brass rings, slate pencils, buttons, screws, pieces of wood, peas, etc., are not infrequently met with in the aural and nasal cavities of children, and even in adults. Such substances have been known to remain in one or other of these cavities for wellnigh a lifetime, causing little or no inconvenience. Thus a case is related of a lady from whose nostril a foreign body was dislodged during the act of sneezing; it was found to be a button which had belonged to her little brother when they were both infants. Another case is recorded in which a piece of slate pencil was removed from a woman's ear, which had been put there when she was at school "forty years before." And a third instance, a patient of Mr. Winterbotham's, of Cheltenham, in which a cherry-stone had been in the ear for sixty years. Mr. Hargood, of Eastbourne, also recently reported the case of a gentleman, aged forty-one, from whose ear a piece of cedar wood was removed by syringing. "The patient remembered distinctly the fact of its introduction when he was a boy at school, at least thirty years before. No attempt had been made to extract it, and its presence had not troubled him until now."

It occasionally happens, however, that a good deal of inflammatory action is set up by the foreign body. As a case in point, I may mention that of a girl who was under my care at the hospital, and who was admitted on account of having a small stone in her ear. She subsequently had paralysis of the facial nerve. Mr. Jonathan Hutchinson alludes to the case of a child who not only had facial palsy, but died of meningitis caused by the presence of a locust-bean in the ear.

There are various instruments employed for removing foreign bodies from the ear, each good in its way. A loop of wire, a scoop, or a needle with the point just slightly turned up, forceps, or an instrument such as this I now show you—which is the best—may be used.

It is not always easy to detect the exact character of the foreign body, and as bearing on this point I may incidentally refer to the case of the man who is here this evening in the adjoining room. About fifteen months ago he was accidentally shot behind the left ear. The patient was seen by my friend, Mr. Henry Jacobs, of Kensington, who has given me the opportunity of examining him with reference to the lodgment or not of the bullet, for the latter could not be discovered after the accident. There is a constant discharge from the ear, and, as you will observe, well-marked facial palsy. My colleague, Dr. Stone, has kindly constructed a clever electrical apparatus by which we are enabled to detect the unquestionable presence of the bullet. Dr. Stone has done us the honor to be present, and I think you will agree that the Society is much indebted to him for the trouble he has taken in bringing the apparatus here, and of thus giving the Fellows the opportunity of witnessing so interesting an experiment.

[The apparatus constructed by Dr. Stone consisted of two fine pieces of silver wire, covered with silk, which were wound together in a single strand to imitate a probe, and about three inches in length. The whole was insulated and stiffened with shellac, the ends being left loose for connection with a battery and galvanometer. The joined ends at the opposite extremity were cut, so as to leave two little disks of clean silver. On placing these disks in contact with the foreign body in the ear, the galvanometer was visibly deflected, indicating the presence of a metallic substance, which was assumed to be the bullet. The exposed surfaces of the disks were intentionally kept as small and the insulation as perfect as possible, to prevent the transmission of a perceptible current by the fluids of the sinus.]

Living larvæ have been found in the meatus of the ear. Dr. Routh publishes such a case. The patient was a gentleman who three years before was tormented with a fly near his ear. Convulsions followed the presence of the larvæ, but the patient recovered, although he remained deaf. Dr. Blake, of Boston, has seen four such cases.

Dr. Kealy, of Gosport, reports a case to show the curious course taken by a pin that had been introduced into the external meatus. It passed through the middle ear, probably along the Eustachian tube, and was extracted by the patient from her throat by hooking it with her finger.

In dealing with foreign bodies situated in the external auditory meatus, syringing the passage will often suffice to effect removal, but in many cases forceps and other instruments must be used, yet they should be employed with the greatest caution. As a rule, if left alone, the foreign body becomes loose, and falls out on the pillow as the patient lies in bed. In extracting foreign bodies from the ear, M. Debout has recommended that the mouth of the patient should at the same time be kept open. It is sufficient, he remarks, to introduce the end of one's finger (and the Fellows may try it on their own person) into the external auditory canal, and to make the lower jaw move, in order to become convinced of the enlargement that the canal undergoes each time the condyle of the jaw is made to move. Dr. Voltilini offers some very sensible and practical remarks on this subject, which I venture to quote. He says, "The first thing we have to do is to assure ourselves that a foreign body is really in the ear, for it by no means rarely happens that persons apply to the surgeon under the belief that an insect or other substance is present, but which a more exact inspection fails to discover." He adds we should never employ force, and in saying this he did not wish to convey the idea that foreign bodies should always be left in the ear, but that matters should not be made worse by violent manipulations. Still more recently, Mr. Dalby has laid down a very practical law that no attempt should be made to remove a foreign body from the ear unless the auditory canal be thoroughly illuminated. Where this rule is broken, the tympanic membrane will most probably be ruptured, and thus the life of the patient placed in imminent peril.

Foreign Bodies in the Orbit and Face.—The limits of my time prevent me from entering into the different injuries of the orbit and its contents, and I regret this the more inasmuch as wounds in the neighborhood of the eye frequently give rise to various anomalous symptoms. In fencing the foil has occasionally passed straight through the orbit, and has penetrated the brain, in some cases, even without injuring the globe of the eye.

The specimen on the table, taken from the museum of St. Thomas's Hospital, is one of great interest, as illustrating the curious course taken by a portion of a table-knife, which entered the cavity of the skull through the orbit. A girl was mixing some detonating powder with a large table-knife. An explosion took place, and she was severely burnt about the face, for which she was admitted into St. Thomas's Hospital. A part of the knife could not be discovered in the room in which the accident occurred. The girl died about a week after admission, and at the post mortem examination the missing portion was found in the position you now see it placed, vertically between the vertex and base of the cranial cavity.

Mr. George Lawson has placed on record an interesting account of the lodgment of a large piece of stick in the orbit itself, accompanied with paralysis of all the muscles of the orbit; and I may refer to a somewhat remarkable case that was under the observation of Mr. Furneaux Jordan. "A man, who was employed in threshing, became the subject of severe ophthalmia. At the expiration of several weeks the patient, whilst pressing his finger on the lower eyelid, suddenly ejected from a comfortable bed of warm pus a grain of wheat, which had shot forth a vigorous green sprout." Foreign bodies will remain imbedded in the face for days, months or years, without giving rise to any discomfort. Thus I not long ago removed from a gentleman's face eight or ten shot, which had caused no inconvenience whatever for twelve years. Substances of different kinds are occasionally found imbedded in various parts of the face without the patient being at all aware of their presence.

In 1868 I saw a man, aged forty-two, at the Westminster Hospital, who had a swelling on the lower lip on the left side. He had been told he had cancer, and sought advice on that account. It appeared that he had fallen from a scaffolding two or three months previously, and had sustained considerable injury to his scalp and face, and his lower jaw was fractured. He had been a patient elsewhere, and stated that when he was under treatment he had fits. On examining the part, the lip was found a good deal swollen, and rather tender to the touch. I made a puncture, when the knife impinged on a hard substance, which proved to be a portion of the crown of the left lateral incisor of the lower jaw, which the patient said he missed after the accident. It was decayed at the neck, and had sharp edges. The patient made a good recovery.

Another instance is recorded in which a canine tooth was lodged in the thickness of the lower lip simulating a cancerous tumor. The patient was a lady forty years of age, who had always suffered with her teeth, and had but few incisors left, the rest of the jaws presenting roots more or less firmly wedged, and the alveoli more or less decayed. Towards the end of the year 1854 she felt a small tumor forming in the lower lip of the left side. Pain was subsequently experienced, and a few months afterwards the patient could hardly eat. She sent for her medical attendant, who made a crucial incision, and discovered a long root of the canine tooth which had been imbedded in the substance of the lip.

Another case is related by Mr. W. H. Folker, at the North Staffordshire Infirmary. The patient was sixteen years of age, a joiner, and was admitted August 29, 1867, on account of a tumor existing in the substance of the upper lip. The swelling was on the right side of the mesial line corresponding to the right central incisor tooth (which was noticed to be wanting), and it seemed to be formed by hypertrophied lip. It caused a good deal of deformity, as the patient was unable accurately to close his lips. The tumor felt hard, but was not painful. On carefully examining the swelling, a small aperture was perceived at its base; and on passing a fine probe a hard substance was felt, which was diagnosed to be a tooth. On the 31st of August, an incision having been made through the tumor, a tooth was found at its base. After its removal the swelling disappeared, and the patient was discharged on the following day.

Mr. Haynes Walton has reported a case of a patient, aged thirty-five, who, three years and a half before, had a fall, and lost his right upper lateral incisor. He had much pain, and a few weeks later an abscess formed, which discharged through a small opening in the cheek as well as through the alveolus of a lost tooth. Then another abscess formed, leaving a sinus open in the right cheek. On probing this, a hard substance was found. The wound was opened up, and a perfect incisor tooth, lying loose in the antrum, was removed.

In conclusion, I will refer to an interesting case that was under the care of Dr. George Johnson, in which tetanus, with facial neuralgia and palsy, and a recurrence of epilepsy, were excited by a foreign body imbedded in the cheek. The patient was a wheelwright, aged forty-four, who, on July 4, 1872, was cut on the cheek by a blow from an iron axle that fell upon his face. The wound was strapped up by a chemist, and healed, but remained very painful. On the 12th he had an epileptic fit. In early life he had been subject to epilepsy, but until the occasion mentioned had been free from fits for twelve years. On the morning of the 13th—that is, about ten days after the accident—he had difficulty in opening his mouth. The left masseter muscle felt prominently hard and rigid. There was a scar, about three-fourths of an inch long, an inch below the left eye, the cicatrix being hard and very tender to the touch. Dr. Johnson, believing that there was a foreign body present, directed the house surgeon to cut through the cicatrix, when a sharp, angular piece of flint, nearly as large as a grain of wheat, was discovered and removed. With this the symptoms gradually passed away. The chief interest of the case, as Dr. Johnson remarked, consisted in the fact that formidable nervous symptoms were excited by the presence of a foreign body of small size beneath the cicatrix of a recently healed wound.

Reviews.

Transactions of the American Gynecological Society for the Year 1878. Volume III. Boston: Houghton, Osgood and Co. The Riverside Press, Cambridge. 1879. 472 pp.

This vigorous society held its third annual meeting in Philadelphia, September 25th to 27th, 1878, with an attendance of twenty-seven out of a total of forty-five Fellows, and a list of twenty-five invited guests, privileged to participate in all discussions during the session. The death of President Peaslee devolved the duty of presiding on Vice-President Goodell at this meeting. Dr. T. G. Thomas, of New York, was elected President for the ensuing year, Dr. J. R. Chadwick, of Boston, was continued secretary, and the next meeting is to be held in Baltimore, beginning Wednesday, September 17, 1879. Twenty-two papers were presented to the society, and of these fourteen were read entire and discussed; the remaining eight, for want of time, were read by title only, but appear in full in the volume before us.

"The relation of Neurasthenia to Diseases of the Womb," is the title of the President's address, by William Goodell, A. M., M. D., of Philadelphia. After a brief warm tribute to the memory of Dr. E. R. Peaslee and Dr. W. L. Atlee, two Fellows who died since the last annual meeting of the society, Dr. Goodell gives hearty thanks to Surgeon Billings for the complete bibliography of obstetric literature attached to the second volume of the Transactions, and commends Secretary Chadwick for the satisfactory manner in which the Transactions weré issued, but lamenting the lateness of their appearance, attributing this, no doubt justly, to tardy contributors and laggard author proof-readers. It is high time all societies that issue books of transactions should adopt a rule making a short limit to waiting for promised papers, in the original or in proof, and their rigidly enforcing the rule against all men.

Dr. Goodell suggests that the scope of the society be enlarged so as to embrace the diseases of childhood among the subjects to be considered, and also certain social questions, such as dress, sexual excess, criminal abortion, etc. Having disposed of these preliminary matters, Dr. Goodell's main theme may be both stated and defined in his own words, viz.:

"Now, in these days of mental overstrain, nerve-tire, or neurasthenia as it is technically called, is so common a disorder in our over-taught, over-sensitive, and over-sedentary women, that in its successful treatment every physician has an abiding interest. It manifests itself by hysteria, by spinal irritation, and by a crowd of reflex symptoms, among which those of a uterine complexion often overshadow, and indeed outlast all others."

Dr. G. follows this with the naming of the legion of symptoms that bespeak phases of ill-health almost as numerous, frequently leading to an apparently hopeless bed-ridden invalidness, the victim being of bad flesh, worse blood, and worst nerves. For his idea of the best management of this last condition, he acknowledges his indebtedness to Dr. S. Weir Mitchell, who details the process in his book, "Fat and Blood, and How to Make Them." In addition to Dr. Mitchell's method, some cases require local uterine treatment and some do not. Dr. Goodell gives three illustrative cases; in one no local treatment, in another local treatment without benefit, and in the third advantageous local treatment throughout the management. The first case was a large-framed girl of twenty, an invalid for five years, and now bed-ridden. She had aches all over, especially severe in the back and over both ovaries; hystero-epileptic fits with frightful screams, retention of urine, uterine tenesmus, leucorrhea, obstinate constipation, and a loss of all appetite. She was put in an upper room, and allowed to see no one but the nurse and physician; was fed on skimmed milk, rubbed (massage), and had electricity applied. At first she could take but little milk, but her ability rapidly increased in this direction, and new milk was presently substituted for the skimmed. She was cured in forty-five days, having consumed two hundred and eight quarts of milk and one hundred and eighteen eggs. In the beginning she had an occasional anodyne, and during the treatment no other medicine than Trommer's extract of malt, dialysed iron, valerianate of zinc, and at intervals an aperient pill. At her discharge she had gained twenty-two pounds in weight, and her waist had expanded from eighteen inches to twenty-seven. Her health appeared to be fully restored.

The other two cases were married women, older than the first, and while their symptoms were diverse from the first and from each other, they were both wretched almost beyond description; but by "rest, electricity, massage and diet," one was restored to health, and the other rendered able to care for herself. The moral management of these patients was an important factor in their cure, but can here only be thus generally stated. Dr. Goodell's address is full of rich suggestions, and the general practitioner will find in it valuable aid in the management of a troublesome class of cases.

Dr. J. C. Reeve, of Dayton, Ohio, described a "Case of Rupture of the Perineum without Implication of the Vulva," to which he was called ten days after the accident, and which he relieved by three operations, but was not entirely cured when the patient passed out of his hands.

Dr. White, of Buffalo, thought laceration of the perineum ought to be prevented by making a triangular division of it in cases where rupture was impending.

Dr. J. Marion Sims, of New York, was absent in Europe, but furnished a long illustrated essay "On the Surgical Treatment of Stenosis of the Cervix Uteri." He reviews the procedures for the relief of this defect by Simpson, Greenhalgh, Routh, Barnes and himself, and asserts the superior merits of his present method (a modification of Simpson's), which consists of incising the cervix bilaterally, enlarging it with a trivalve dilator, inserting a glass or rubber plug the full length of the cervix, and retaining the plug with a tampon of cotton-wool, soaked in a carbolized saturated solution of alum. The instruments employed are of his own invention, and he describes minutely the manner of using them, and intelligently all the details of the process. This for stenosis of a straight canal.

In anteflexion of the uterus some cases are given of the relief of leucorrhea, dysmenorrhea and sterility, by amputating the posterior lip of the os tincæ; and cases of success in treating the same difficulties by slitting the posterior lip in the median line to the vaginal junction; and then the author dwells long and earnestly on the value of his antero-posterior section of the cervix in many cases of stenosis from anteflexion. Indeed a considerable part of the essay is taken up with a plea to vindicate his claim to originality in this operation, most of his cases and illustrations being devoted to this end.

Speaking of the danger of the incisions of the cervix, Dr. Sims says he has performed the operation nearly a thousand times in twenty-two years, with two deaths — one of these being due to accident arising jointly from imperfect dressing and improper nursing, the other came of the bursting of an abscess of the fallopian tube, existing unrecognized before the operation. In both cases, the immediate cause of death was peritonitis.

Not by its direct statements, but by the whole tone and tenor of this dissertation, one is led to infer that stenosis of the character described is very common, is always attended by dysmenorrhea and sterility, and is always cured by a proper operation, which, when skillfully performed, is certainly safe. This roseate inference would be likely to lead the inexperienced or thoughtless gynecologist astray, if there were not some dimming of the brilliant coloring. The check to this danger is found in the valuable discussion which followed the reading of the paper.

Dr. Barker, of New York, opened the discussion by using fitting terms with which to accord to the author of the essay the very highest position as an original, ingenious, bold and skillful gynecological surgeon; but adding that this "should not exempt his doctrines and his practices from searching examination and honest criticism." Dr. Barker illustrates the unequal merit accorded to cutting operations in stenosis, by supposing in effect that four gynecologists of equal culture and skill, having equal number of patients in an equal time; statistics show that one will operate on one thousand cases, a second on seven hundred, a third on five hundred, while the fourth will find but two hundred needing that kind of attention. This is a significant statement. He also declares that some excellent men, who formerly operated very frequently, do so now rarely; and, what is decidedly important, he knows of sixteen unpublished deaths from incising the cervix, occurring in New York alone. His words lead one to apprehend that this operation has often been done unnecessarily—that its success has been overrated and its danger underrated. Furthermore, he points out in a rational way how enthusiasts may easily be led astray in these particulars.

Dr. E. Wilson, of Philadelphia, had better results from dilatation than from either Simpson's or Sims's operation.

Dr. Noeggerath, of New York, maintained that the idea of straightening the canal by a cutting operation was untenable; one might enlarge it by such procedure, and this was best done by Peaslee's method, which simply incised the mucous membrane, leaving the parenchymatous structure intact. The habit of gentlemen was to cut the cervix, which gave temporary relief, and which they believed to be a permanent cure, whereas in six months, one, two or three years, the canal had assumed its old form, and reëstablished all the former suffering. The value of this operation had been discussed for over twenty years, and the discussion would continue until the friends of the operation consented to watch for the final condition of their patients and report the result. Dr. N. had a method of his own for treating this disorder, but in not enough cases had sufficient time elapsed to authorize him to present his plan.

Dr. H. P. C. Wilson, of Baltimore, feared the tendency of the debate was to ostracize the operation. No doubt the operation had been done many times when it should not have been, but he thought there were instances where no other means would effect a cure.

Dr. Lyman, of Boston, did not think much of the operation; preferred dilatation; but hoped Dr. Emmet would give his views of the pathology of these cases.

Dr. Emmet, of New York, was convinced that where the flexure was above the vaginal junction, it indicated trouble elsewhere, and an operation would do no good; and in all cases it is important to determine how far the flexion is due to previous cellulitis, and in such cases not operate.

Fairly interpreted these proceedings would indicate to the young gynecologist that the popularity of the operation of incising the canal of the cervix uteri for stenosis is on the wane, and yet that there may be cases in which it is demanded.

"A Case of Extra-Uterine Pregnancy, with Discharge of the Fetal Bones through the Bladder," is reported by James P. White, M. D., of Buffalo, wherein a part of the bones were extracted from the urethra from time to time for over two years—the remaining bones supposed to be encysted about the fundus of the bladder. The patient had three attacks of peritonitis, but for a year had been in good health.

Joseph Taber Johnson, M. D., of Washington, D. C., narrated a "Case of Foot and Head Presentation, with Fracture of the Spine in Utero." The patient was a vigorous woman, who had had two easy labors. This third labor lasted twelve hours, and the child was delivered under chloroform with forceps—the head presenting with the occiput to the right acetabulum, and the left foot in advance of the head, and this relation was maintained until delivery, the force of the pains having fractured the spine in the middle of the back. Although at delivery the mother's pulse was one hundred and forty, and her temperature 101.5°, she made a quick and good recovery. The child was still-born.

Thomas Addis Emmet, M. D., of New York, read a paper entitled "The Necessity for Early Delivery, as demonstrated by the analysis of one hundred and sixty-one cases of Vesico-Vaginal Fistula." A tabular statement of these one hundred and sixty-one cases is given, showing that one hundred and forty six were cured, nine improved, three not improved, one died, and in two the result was unknown. The table also gives in each of these classes the mode of delivery, the average time in labor, and the time under treatment for the fistula, the number of still-born children, condition of bladder during labor, and the time of escape of urine. Dr. Emmet says:

"At the outset I must state that an analysis of these cases establishes the following facts: Instrumental delivery has rarely, if ever, any agency in the production of vesico-vaginal fistula. The direct cause is always the delay in delivering after impaction has taken place; while the indirect one, in a large proportion of cases, is a neglect to empty the bladder."

This is certainly strongly stated, and the author points to the medico-legal bearing of the facts he presents.

He analyzes his table to impress the lessons it teaches; an important one being the necessity of an earlier resort to forceps for delivery than has been the custom with accoucheurs.

A lengthy discussion of this paper followed its reading.

Dr. Smith, of Philadelphia, was glad to have Dr. Emmet's statistics in favor of an earlier application of the forceps. In the Philadelphia Lying-in-Charity over ten thousand women have been delivered, mostly attended by medical students, who have been taught to resort to the forceps early, and but one case of vesico-vaginal fistula has occurred, and that from a vaginal rupture extending into the bladder.

Dr. D. H. Storer, of Boston:—"I have no doubt that the forceps are of great value in certain cases. . . If the forceps be not applied until impaction of the presenting part has taken place, I agree with the gentleman; but the idea that the forceps is an instrument which must be almost constantly used is, I think, a dangerous one"

Dr. Barker, of New York, warmly espoused the theory of the paper teaching the necessity of attending to the condition of the bladder in protracted labor; and as warmly approved of the recommendation of an earlier resort to the forceps than had been the habit heretofore of obstetricians.

Dr. Penrose, of Philadelphia, counted the most valuable point in the paper that which taught that the exact time to use the forceps was almost immediately after the head of the child ceased to recede after a pain.

Dr. H P. C. Wilson, of Baltimore, was of the opinion that the forceps should be used when the head ceased to advance, whether it receded or not, on the subsidence of a pain; with his increasing age the more freely he used forceps: its use should be regarded as an accompaniment of labor, not an operation.

Dr. John L. Atlee, of Lancaster, finds that the older he grows the more frequently he applies the forceps.

Dr. White, of Buffalo, announces that statistics show that formerly forceps delivery was once in six hundred cases, and now once in ten cases; and he approved of the change.

Dr. Emmet added a word to say that the bladder must always be emptied before delivery with the forceps; if it could not be done with a catheter, it should be done with an aspirator above the pubes.

Dr. Reeve, of Dayton, Ohio, reported his use of an aspirator as named by Dr. Emmet, and was pleased with it.

Dr. Goodell, of Philadelphia, feared that the frequent use of forceps was too strongly advocated in this debate. Skilled men, like those who had spoken, could use the instrument without harm; but this discussion was to influence the young and inexperienced, and they should be taught caution. Rupture of the cervix and the perineum did occur from the general use of forceps. True, over ten thousand cases of parturition had taken place at the Lying-in-Charity in Philadelphia, under the care of the students, who had been taught the propriety of the early use of the forceps, without an accident from the use of the instrument; but the good result was accounted for by the fact that the students did not operate, but at the first dawn of trouble sent for their accomplished teacher, his friend Dr. Smith.

Dr. Englemann, of St. Louis, feared that Dr. Emmet's paper might lead to erroneous conclusions concerning the use of forceps, unless other statements were made than those already given us.

One readily deduces from Dr. Emmet's paper and the comments it excited, that the sentiment of many prominent obstetricians is in favor of the more frequent use of forceps in tedious and delayed labor, but that this sentiment is not held by all eminent accoucheurs. The truth seems to be that skilled men may use the instrument frequently and safely, where those less qualified had better trust to nature, or what is a reasonable duty, at once call for skilled assistance. It is quite true that vesico vaginal fistula may not be caused by the use of forceps, because the blades of the instrument are carried away from the median line by the fetal head; but this does not prevent them from lacerating other parts to a serious degree when in careless or ignorant hands. Logically, one fails to understand why those who advocate the frequent resort to forceps, asserting that no harm ever comes of their use, should be so minute and emphatic in their directions as to the time and manner of the application of the instrument, and the preliminary precautions and attendant conditions to be observed and enforced.

Two papers follow on the same subject, one by Henry P. C. Wilson, M. D., of Baltimore, entitled "The Hand as a Curette in Post-Partum Hemorrhage;" and the other by R. A. F. Penrose, M. D., Philadelphia, under the head of "The Treatment of Post-Partum Hemorrhage."

Dr. Wilson's is a brief pointed detail of a recent case, wherein after a favorable labor completed in an hour and a half, there was immediately immense hemorrhage threatening the life of his patient. Five times he passed his hand, containing a lump of ice, into the uterus, inducing prompt contraction, but each time followed at once by dilatation and a rush of blood. During the time he was applying the ice he had administered an ounce and a half of Squibb's fluid extract of ergot—six drachms by the mouth, two drachms hypodermically, and half an ounce by the rectum. In this extremity Dr. W. thought of the value of the curette in other hemorrhagic disorders of the womb; and again passing his hand into the flaccid organ, thoroughly raked the placental surface with his finger nails. This brought on feeble contraction, which, however, soon relaxed, and he did a second raking in like manner; and although there was only feeble contraction, not a teaspoonful of blood was lost after the first raking. After forty-five minutes more the after-pains set in, the uterus contracted firmly, there was no further trouble, and the patient made an exceptionally good recovery.

Dr. Penrose, after a deal of circumlocution and a great waste of words, informs that a clean rag or pocket-handkerchief dipped in vinegar and carried into a freshly-emptied womb, bleeding through atony, and the vinegar there squeezed from the cloth, acts like magic and never fails. Apparently it makes no difference about the strength of the fluid applied, or what it is composed of, so it is called vinegar, as it is taken from the family supply at hands.

These two papers on post-partum hemorrhage were jointly considered and caused a long discussion, made up mainly of the estimation in which the several speakers held the various measures recommended in our text-books to assist post-partum hemorrhage.

William H. Byford, M. D., of Chicago, contributes a paper on "Dermoid Tumors of the Ovary," describing four of these growths that fell under his operative attention. One tumor contained serum, half a pound of sebaceous fat, having the appearance of yellow butter, and fine brown hair an inch long springing from a patch of dermoid tissue. A second tumor contained bluish serum, yellow fat, and blonde hair eighteen inches long. The third tumor contained ten quarts of bluish serum, several ounces of yellow fat, blonde hair an inch long, many pieces of bone, and more than a hundred imperfect incisor teeth. The fourth tumor was a cyst, having three compartments of about equal dimensions; all filled with fat, no other fluid; all containing bones and teeth—incisors and molars, crown, enamel and fangs complete; one compartment had in it red hair, another blonde, and the third gray—the patient's hair being dark brown. Dr. Byford followed the detail of these cases with a review of the theories of the origin of dermoid tumors, which was supplemented by remarks of Dr. Noeggerath, of New York, in the same direction.

"A Contribution to the Study of the Treatment of the Acute Parenchymatous Nephritis of Pregnancy," by William L. Richardson, M. D., of Boston. An examination of the urine of one hundred and fifty-six pregnant women admitted to the Boston Lying-in Hospital, showed the presence of albumen in forty-one per cent. This indicates that simple albuminuria need not be regarded as serious. Nevertheless, when the symptoms of acute parenchymatous nephritis are present, it should excite earnest attention, for of these cases under his observation in the last eight years sixty-five per cent. were attended with convulsions. His treatment is not very definitely stated, but appears to have consisted of the administration of saline cathartics, bromide of potassium and chloride, as preventive measures. However, the salient point of the essay seems to be a desire to call attention to the fact, as the author believes it to be, that danger increases with the scantiness of the urine; and if the quantity of urine decreases steadily in spite of treatment, premature labor should be induced, whether threatening symptoms are present or not.

In the discussion of the paper, the speakers considered the points of the paper well taken; but the remarks contained nothing new and striking, unless it was the suggestion of Dr. Thomas, of New York, that pilocarpine was one of the most useful diaphoretics ever introduced into the materia medica.

Samuel C. Busey, M. D., of Washington, D. C., reports a case of "Alternating Anterior and Posterior Version of the Uterus." This might be called a wabbling womb, and Dr. Busey's report of it is valuable, as illustrating a close, scientific study, and the application of ingenious art in the successful management of an unusual and difficult disorder, probably much aggravated by previous bad treatment. A cut of the efficient pessary applied is given.

"Remarks on Gastro-Elytrotomy," by Henry J. Garrigues, M. D., of Brooklyn. The author has sought the literature of this operation, and announces a book soon. He finds the idea suggested by Joerg, a German, in 1806; and in 1821 Ritgen, another German, attempted the operation, but changed it into a Cesarean section, the patient dying of hemorrhage. Without knowledge of his German predecessors, the younger Baudelocque, in France, made two attempts, which he reported in 1844. In one case he also changed the procedure into the Cesarean section, and in the other he completed the operation of gastro elytrotomy. Both patients died. About 1822, Dr. Physick, of Philadelphia, proposed a modification of the Cesarean section, involving the idea of gastro elytrotomy; and in 1837, Charles Bell gave publicity to a similar thought.

Without any knowledge of what others had done or said, Dr. Thomas, of New York, thought out the operation, and when opportunity offered performed it, and after him Dr. Skene has followed in his footsteps. Each of these gentlemen has performed the operation three times, saving three mothers and four children—a result far in advance of the success of the Cesarean section. Nevertheless the cases are too few to authorize the announcement that gastro-elytrotomy is one of the established obstetric operations, but it presents strict claims for favorable consideration. A supplement to the paper contains illustrations of Ritgen's case.

Albert H. Smith, M. D., of Philadelphia, read a long paper entitled "The Pendulum Leverage of the Obstetric Forceps," and he claims these conclusions:

"First, that pendulum movements are in direct violation of the teachings of nature; second, that they are absolutely useless, so far as any aid to traction is concerned; third, that any virtue they have is in stimulating uterine contractions, which then act independently of them; fourth, that so far from diminishing friction, they increase the mutual pressure of the head and pelvic walls, thus increasing friction; fifth, that they tend to do injury to the pelvic tissues, no matter at what point of the pelvis they are practiced; sixth, that so far from being specially useful when the head is 'tightly gripped,' to use Dr. Galabin's expression, and the extraction difficult, the greater the difficulty of the case, the greater necessarily is the injury to the tissues."

Dr. Smith admits that all American obstetricians are against him; all British, except Dr. Matthews Duncan; and perhaps all schools, except the Vienna school. Still he has the courage of his convictions, and does battle vigorously for the rule that the direction of traction with obstetric forceps "shall be made steadily in the median line, with no lateral or pendulum motion." This is the practice taught in the Philadelphia Lying-in Hospital from its foundation, by Dr. Warrington, Dr. Ellwood Wilson, and himself. He illustrates by a diagram, but it is easy to make diagrams to suit; and he reasons most earnestly, but his argument is tinged with sophistry, and his premises are not always correct. So far as appears by the record, Dr. Smith did not have any Fellow of the Society to agree with him.

Henry F. Campbell, M. D., of Augusta, Ga., contributes an interesting dissertation on "Rectal Alimentation in the Nausea and Inanition of Pregnancy: Intestinal Inhaustion an Important Factor, and the true solution of its Efficiency." Dr. Campbell refers to a paper on Rectal Alimentation, by Dr. Austin Flint, in the American Practitioner, January, 1878, and to a recent discussion on the same subject in the New York Academy of Medicine, as his sufficient authority for the assumption that "life may be sustained indefinitely solely by rectal introduction of aliments." But while this method of nutrition has been made available in divers other difficulties, it has not been appropriated to the sustentation of pregnant women suffering from gravid nausea. Dr. C. has applied it in this way, and he believes that hereafter it will not be necessary to induce abortion simply because a pregnant woman can not be nourished through the stomach. For food per rectum he gave beef-tea, enriched by the addition of a condensed preparation of meat, to which were occasionally added rice-water, arrow-root, jelly, gruel, blanc-mange, custard, and the like. Dr. Campbell does not believe the food is digested in the rectum, but that it is carried up through the colon into the small intestines, where it finds juices suitable to convert it into an absorbable and assimilative condition. This transfer of food from the rectum to the small intestines he calls "intestinal inhaustion," and claims originality in its observation, and he relates many well established facts to support his theory, as well as narrates his experiment with a kid as a clinching demonstration.

James P. White, M. D., of Buffalo, reported a case wherein after ovariotomy, because of an irritable stomach, the patient was given a suppository every four hours, containing belladonna, quinia and opium, with seeming good effect, until on the afternoon of the third day, when she had taken thirty-five or forty grains of opium, dangerous narcotism suddenly supervened, from which she was with difficulty rescued.

"Three Cases of Rupture of the Uterus," is a paper presented by Theophilus Parvin, M. D., of Indianapolis. Two of the cases were reported to him by professional friends, and the third he saw in consultation, and delivered by podalic version perhaps six or eight hours after the rupture. The patient died a little more than four days after the accident, the fatal result being due, the doctor believes, to gross neglect and bad management on the part of the nurse. Dr. P. recites some statistics as to the frequency of rupture of the parturient uterus, and briefly refers to the views of the etiology of the accident, of sundry eminent obstetricians. After admitting the value of gastrotomy in certain forms of rupture, he closes with a neat paragraph expressing his adhesion to the creed of Tyler Smith's golden rules for preventing the disaster.

"On the Early Delivery of the Placenta when Previa, with the Relation of a Case of Spontaneous Separation of the Placenta without Hemorrhage," by Isaac E. Taylor, M. D , of New York. The spontaneous separation of the placenta without hemorrhage was in a primipara at about term, the placenta being in a state of thorough fatty degeneration: not two ounces of blood were lost.

Dr. Taylor's paper is largely occupied in defending against all comers his idea that the cervix uteri in pregnant women remains intact until labor sets in, when the contractions of the womb push down the bag of water and the fetal head, and force it open. He has maintained this view for many years, and now presents pictures, facts and arguments to sustain his long-time position.

Regarding the treatment of placenta previa, he names seven methods, namely—first, the tampon; second, version; third, partial circular detachment of the placenta; fourth, complete detachment; fifth, lateral detachment; sixth, the forceps; and seventh, the induction of premature labor. Each of these methods is suited to some cases, or parts of some cases, but the author is not satisfactorily clear and definite in laying down the conditions and rules that should guide, by time or circumstances, to the rise of the one or the other of these methods. Certainly he does not appear to fully compass either the nature, the method of application, nor the virtue of the tampon in such cases. In fact the whole paper is a little mixed and muddy. For want of time, this was one of the papers that was read by title only, and consequently was not discussed, which is a subject for regret.

Ely Van De Warker, M. D., of Syracuse, N. Y., has a short essay on the Treatment of Pelvic Indurations and Adhesions. When non-suppurative sequelæ of pelvic cellulitis or peritonitis become painful, it is due to a relighting of inflammation in these deposits. Anodynes have only a limited value in controlling this pain, which must be controlled before cure can be effected. This is best done by rest, swinging in a hammock, and electricity. For the absorption and radical cure of these cases, where nature fails as she sometimes does, the best means are electricity, ammonium chloride, and massage.

A. Reeves Jackson, A. M., M. D., of Chicago, writes "On Some Points in Connection with the Treatment of Sterility." While there is nothing new in Dr. Jackson's paper, there is such a plain and sensible manner of selecting accepted truths, of arranging and presenting current knowledge, that it has the attractiveness and force of original matter, and will serve as useful a rôle. The general practitioner or inexperienced gynecologist will find something to instruct and much to encourage him in this little essay

The last of the scientific papers presented to the society is a short illustrated report of a case of "Extreme Anteversion and Anteflexion of the Uterus at the full term of Pregnancy," by Isaac E. Taylor, M. D., New York. The pendulous belly reached within an inch of the knees when the patient was standing: there was general contraction of the pelvis. When labor came, the uterus was held in place by a stout bandage from the shoulders, and delivery of a large child effected by the forceps. All did well.

Two Fellows of the Society died during the year—E. R. Peaslee, M. D., LL. D., of New York, and Washington L. Atlee, M. D., of Philadelphia. For each the volume contains a full and affectionate obituary memoir; that for the former written by Dr. Fordyce Barker, for the latter by Dr. Thos. M. Drysdale. Each memoir is adorned by a handsome engraving of the distinguished gynecologist whose virtues it records.

A paper submitted to the Council by Nathan Bozeman, M. D., New York, a candidate-elect for Fellowship, is headed the "Mechanism of Retroversion and Prolapsus of the Uterus considered in relation to simple Lacerations of the Cervix Uteri, and their Treatment by Bloody Operations." Dr. B. finds the text for his paper in a contribution to the American Journal of Obstetrics, November, 1874, by Dr. T. A. Emmet, of New York, entitled "Lacerations of the Cervix Uteri as a Frequent and Unrecognized Cause of Disease;" and another communication by the same writer, on the same theme, in the American Practitioner for January, 1877. Dr. Bozeman thinks Dr. Emmet is mistaken in his theory, his facts and his treatment of these lacerations of the cervix uteri; and after a philosophical consideration of the structures and forces involved, details his own treatment, consisting of constitutional invigoration and local support, chiefly by a special steel wire pessary of his own suggestion.

The volume is completed by an index of gynecological and obstetric literature of all countries for 1877, occupying forty-six pages.

The book is handsomely printed on tinted paper, and is remarkably free from typographical imperfections. As a whole, the Fellows of the American Gynecological Society may well feel comfortable over both matter and style of the third volume of their Transactions. J. F. H.

The Advantages and Accidents of Artificial Anæsthesia—A Manual of Anæsthetic Agents and their Employment in the Treatment of Disease By LAURENCE TURNBULL, M. D., Ph. G., Aural Surgeon to Jefferson Medical College, etc. Second edition, revised and enlarged, with twenty-seven illustrations. Philadelphia: Lindsay and Blakiston. 8vo., pp. 322.

The rapid sale of a large edition of this work in a year, proves it to have been a book that was needed. In some of our larger hospitals the use of chloroform has been prohibited, and to busy practitioners, away from medical centers, the question comes, what anesthetic shall we use? After a careful reading of this book, we think the practitioner will arrive at the same conclusion as the author, namely, that for minor operations hydrobromic ether is most satisfactory, for the usual dental operations nitrous oxide gas is safest, and for dangerous and protracted operations the safest and best anesthetic is the pure ether. The author states that the danger to be avoided in anesthesia by ether is over-inebriation, but that ether always gives timely warning. He quotes the statement that the dangers from chloroform are not averted by its admixture with ether in any proportion; and that the combination of these two agents can not be too strongly denounced as a treacherous compound. The former statement we can not fully indorse, for while it is probably best to give these anesthetics separately, yet we have seen a depressed heart stimulated by mixing ether with chloroform. In giving ether vomiting rarely occurs when the patient has abstained from food and liquids for six hours beforehand. In Philadelphia ether has been administered about 34,980 times from 1846 to 1878, without a single primary death and only one secondary death. Every doctor knows that chloroform depresses the heart's action and ether stimulates it, and Dr. Turnbull gives a sphygmographic tracing to show this fact.

There is presented a table of eighteen deaths from ether, the deductions from which as to the cause of death are, first, that the fatal effects of ether do not depend upon any directly poisonous properties of its own; second, that the cause of death was asphyxia. There is a table also of one hundred and sixty deaths from chloroform, which, added to two hundred and ten cases previously reported, make a total of three hundred and seventy. The causes of death in these cases were collapse, shock, syncope, asphyxia, paralysis of the heart and chloroform-poisoning.

Formulæ are given for the internal use of the various anesthetics and for their local application. Among the latter, the ether spray over the abdominal wall for the control of post partum hemorrhage, and in chorea "a jet or hand spray of sulphuric ether will relieve the most violent spasmodic or convulsive attack of chorea, with the subsequent use of Fowler's solution, five to ten drops three times a day in water, and occasional application of the galvanic current to the spine."

Cases of threatened death from chloroform resuscitated by the use of nitrite of amyl are given, also cases in which this antidote utterly failed, but the preponderance of evidence is in favor of its use.

In regard to the use of chloroform in natural labor, the tendency, as given in the book, is to its use in small quantities in the second stage, although Playfair thinks it favors post partum hemorrhage, and that chloral in fifteen grain dose acts far better, and does not lessen the strength of the contraction.

There is handy index for ready reference completing the manual.

A. M.

FOREIGN CORRESPONDENCE—OUR LONDON LETTER.

LONDON, September 15, 1879.

MY DEAR YANDELL: The sun is shining—no, not brightly, but it is shining, and has been doing so, more or less, the last three days, which represent almost all the summer we have had this year. Deluged with water, drowned out; our wheat crop a terrible failure, potatoes done for, we must look to foreign supplies of food; while our farmers must just bear their ruin as manfully as they can. It is very serious; and the country doctor all over Great Britain will have to share with the farmer in his embarrassment. Even barley and hops, for the national beverage without which we could not exist—in spite of Sir Wilfred Lawson and the Alliance—are wanting this year; and we must look to foreign materials even for our choicest Burton. Our requirements in the way of food ought to be beneficial to your farmers, so that it is an ill-wind that blows nobody good. But our farmers do not like your American weather-prophecies, especially since they perceive that their ruin is to the advantage of American farmers. The present season will put hundreds of the old-fashioned farmers "out of their misery;" and those who can stand the loss will know better than grow wheat in England any longer against foreign competition. I know, my dear Yandell, this is not quite to the point; but our minds in Great Britain at present are occupied—yes, and exercised too—on this subject of the failure of our crops, and the continued fall in wages, and what our poor are to live on next winter.

The great medical event since my last letter has been the British Medical Association meeting, which took place this year at Cork. Doubtless your brother will have given some account of the social arrangements, and the kind of a time they had amidst Irish hospitality; so I will confine my remarks to the work done.

Prof. Hudson, of Dublin, led off with the address on Medicine, and took for his subject "Laënnec: his Labors and their Influence on Medicine." He pointed out how Laënnec developed mediate auscultation, by which our modern method of careful examination of the chest was rendered practicable. He drew attention to the fact that Laënnec did not himself overestimate the importance of physical signs, though some of his followers have done so: he repeatedly urges the value and necessity of the study of rational symptoms. He then referred to Laënnec's views on tubercle, which have been found to be in parts erroneous. A leader in the British Medical Journal says, in reference to this subject. "Great as Laënnec was, both as a pathologist and a clinicist, his fame will always depend upon his clinical investigations. The French school have recently attempted to rehabilitate Laënnec's pathology of tubercle; and there is no doubt that, so far as phthisis is concerned, the investigations of recent years have shown that there are no histological characters enabling us to say that this is tubercular and this is pneumonic phthisis. As Dr. Green has shown, there is absolutely no change in phthisical lungs which is distinct from what may be seen in various chronic inflammations. Caseation may be fully admitted to be a change in which inflammations in strumous subjects are prone to terminate; and were there no tubercle but that seen in phthisis, there would be little difficulty." That there is acute tuberculosis—a disease *per se*—must, however, be admitted. Professor Hudson recognized the importance of bearing the inflammatory origin of phthisis in mind in treatment, both as to "relapses, which ensue from exposure to cold or other acts of imprudence during the progress of the disease," and the treatment of the early stages. He says, "I have seen several cases in which the life of the patient was prolonged for years by the vigorous treatment of an attack of pneumonia or pleuritis, or bronchitis occurring in a more or less advanced stage of the disease; while as regards the earlier stages, it has been my practice, in all cases in which the exciting cause was cold and the symptoms and physical signs those of any form of inflammation or congestion, to commence by the employment of such measures as moderate local depletion, counter-irritants, and the free administration of the iodide of potassium, and bicarbonate of potass., conjoined with sedatives. I could cite not a few cases in which this treatment has apparently averted the disease." He however forgot, or anyhow omitted to point out, how often local depletion, of the best and most effective character, is brought about by hemoptysis spontaneously set up; and which gives such relief in the congestion of commencing lung mischief—call it by what name we will.

He then considered Laënnec's work in relation to the diseases of the heart, and especially "fatty degeneration." Laënnec described fatty degeneration correctly, and discriminated betwixt it and fatty infiltration, though to Quain belongs the merit of having established the two forms conclusively. The subject has been followed out by Stokes, Walshe, Hayden, and Fothergill ("who gives a masterly description of the general symptoms," he says), until the whole matter is now fairly understood.

William Savory, F. R. S., Surgeon to St. Bartholomew's Hospital, gave the address on Surgery, and chose as his topic "The Prevention of Blood-Poisoning in the Practice of Surgery." He thought the chief triumph of this era of surgery is the successful war it has waged with blood-poisoning in all its various forms. He said of bacteria that every one knows how they are prone to abound when putrefaction and kindred changes occur. For the most part their presence may be regarded as the signal that such changes are in progress; but the exact relation they hold to such changes is at present with many a vexed question. He said:—"We do know that when fluids so changed by them find an entrance from without, they are prone to provoke grave mischief. But we also know that such fluids, potent for the gravest mischief, may be produced within the body, deep among the tissues, far away from any chance of direct communication with the air, and this without previous wound or injury of any kind." He then discussed the subject of how it is that all wounds not treated antiseptically do not go to the bad. He said:—"All wounds except the most recent, when tolerably healthy, are covered, as we all know very well, by a newly-formed delicate structure, sometimes called granulation tissues—sometimes presenting other but kindred forms; but which, in any case, constitutes a continuous layer interposed between the blood and whatever may be on the surface: and it seems to be pretty clear that this animal membrane has, like similar structures of the class, the property of separation; that it has the power of allowing of the passage of certain substances and rejecting others, and that upon this simple action of dialysis health and life very often depend. It remains then to inquire under what conditions the poison can gain entrance to the blood. First of all, this mischief is least likely to happen in healthy wounds during the process of repair; and when it does occur, it is either in a wound unhealthy in character or flagging in action, or in one so recent, or in which the process of repair has been so delayed, that little or no new and healthy tissue has been produced on the surface. In other words, when the newly-formed tissue is healthy and entire, it is tolerably impregnable, and whatever interferes with its integrity gives the opportunity for mischief. I say the mischief is less likely to happen in proportion as the wound is healthy and the repair is rapid; but exceptions to this we know to occur: and it is reasonable to suppose, in some cases at least it has been almost demonstrated, if in some obscure corner reparative action has not failed, that from some violence or accidental disturbance or other cause, the continuity of the new structure has been broken or its integrity somehow impaired, and so the poison has passed in." Once it was thought all mischief arose from within; then the truth began to dawn that the actual poison was derived from without; and since then antiseptic surgery has taken up its position."

He then proceeded to describe how he would treat a wound, as an amputation of the thigh, or excision of the breast. "Having carefully arrested all hemorrhage, using most probably the carbolized catgut ligature, and having gently removed any particles of blood-clot that may have lodged on the surface, employing only clean water or sponges just rinsed out of it, I should, without any other interference with the surface of the wound, bring the edges together, adapting these as nicely as possible with silver wire sutures. I should not in this way attempt to close the wound completely, but I should leave spaces between the sutures, perhaps from one to two inches long. Then, over the course of the wound, and for some distance on each side of it, I should place a layer of folded lint, which had been previously well soaked in olive or almond oil containing one part in about fifty of carbolic acid. Over this again I should place two or more layers of dry lint, either with or without cotton-wool; so arranging this as, by gentle and equable pressure, to secure without any violence, as far as practicable, the accurate adaptation of the surfaces of the wound throughout, avoiding thus any considerable cavity in the interior. I should secure all this by strapping or bandage, or both, so adjusting these that they may hereafter be removed with the least disturbance. I should place the patient and the wound in the most comfortable position possible, having especial care to the fact that fluids, as they form, may flow outwards. Thus, for instance, after excision of the breast I have, for some time past, placed the patient, not on her back, but on the opposite side, so as to make the inner angle of the wound the most dependent part of it. I am convinced that this assists greatly in promoting speedy and satisfactory repair. It is much better for fluid to escape at the inner than the outer angle, and this more especially when the axilla has been disturbed by the removal of glands. The cellular tissue is so very much less abundant and less loose towards the sternum, that the chance of infiltration of it by fluid is very much less. As a rule, perhaps, I do not disturb this arrangement for forty-eight hours; although very often I change the dressing and inspect the wound after twenty-four. I am guided in this matter of time by the state of the patient—whether spare or full-bodied, her sense of local and general comfort, freedom from or complaint of pain, and the season or temperature. But whenever I am in any doubt I change the dressing; these, then, are removed with the utmost gentleness, and the state of the wound carefully inspected. Especially is attention directed to whether there is any tendency to the lodgment of fluid; whether that which forms can escape freely; whether there is much tension in the edges. I am bold enough to think that a surgeon who understands his business can tell, without painful handling, whether the surfaces of the wound are fairly in contact, or whether there is any tendency to the accumulation of fluid separating them. But if any doubt arise on this important point, a perfectly clean probe or director, lightly applied to some portion of the wound, will solve it, and secure ample vent; if at all necessary I should not hesitate to remove one or two or more sutures. If the wound presented no other evidence than that of satisfactory repair, I should dress it as before, and proceed in this fashion, dressing and examining it daily or less frequently, according to circumstances. But if at the first dressing, or at any time afterwards, the discharge became at all profuse, or the surfaces did not remain in contact, or there were much tension or a blush at the edges, I should forthwith substitute a bread-and-water poultice for the previous dressing, and probably continue to employ this until at least the deeper portion of the wound had closed. When I dressed the wound, I should wash it probably from the first with tepid water, perhaps containing some permanganate of potash in the form of Condy's fluid, or other potent antiseptic of the least irritating kind. I should accomplish this washing out, if I thought fit, by the use of a syringe, avoiding contact of sponges or other substances with the wound. I aim here at the utmost possible cleanliness, having at the same time due regard to the avoidance of any unnecessary disturbance, that the process of repair be not interrupted; and withal, I endeavor, by means I need not indicate, to secure for my patient the most complete rest and the purest air." (How the late Prof. J. Hughes Bennett would have declaimed against these "perhaps" and "probablys!")

He then inveighed against the present excessive use of drainage-tubes, holding that in many cases care in securing a free outflow from the most dependent part of a wound is of most value. Drainage-tubes are, he holds, "foreign bodies in a wound. They act, of course, as foreign bodies in almost all circumstances do; they irritate, they provoke suppuration and the formation of fluids. Those who are accustomed to witness with complacency the escape of fluid along drainage-tubes, hardly reflect that the drainage-tube has been a cause—perhaps the prime cause—of the formation of the fluid which flows out. When I see these tubes moved to and fro in a wound with the escape of pus, I am forcibly reminded of what I have often seen in former years, the action of setons; the drainage-tube is in fact a seton. Even when they are retained only for a short time, not long enough to produce further mischief, they are fatal to the chance of direct union of a wound. And is this, the best of all results, to be now altogether given up as a visionary idea? Is union by the first intention to become a thing of the past?—(he trenchantly asks.) When I see for example a fatty tumor, small or of moderate size, removed under the skin, and then the edges of the wound stitched closely together over a drainage-tube lodged throughout its length, it seems to me idle to talk of principles of surgery. That such wounds do at length close in spite of this treatment, I know; but I think I know also that they will heal more quickly and kindly, directly without disturbance, if they are simply closed in the way to which I have already alluded." Under certain circumstances drainage-tubes are very useful, he admits.

He has a good word for his old friend, the bread-poultice. He says:—"Its absolute and relative value in surgery can be determined only by experience; and if the surgeons who condemn it have done so only after a fair trial, then all I can say is that their experience on this subject is very different from mine. Having many years ago, like I suppose most surgeons at one time or another, been prejudiced against poultices (for if not skillfully made they are ugly and clumsy things), I have more than once cast them aside in favor of some other application; but again and again I have been driven back to their use by the plain fact, as it appears to me, that they fulfill certain conditions better than any of their rivals. I do not undertake to explain how they are excellent. I find certain qualities possessed by them in an eminent degree, but to what precise extent these are instrumental to the result I can not say. A well made bread-poultice (which I make bold to suspect some of you have never seen), preserves ample moisture and equable warmth; it is everywhere very soft, and adapts itself with singular uniformity to all irregularities of surface. In my experience this homely article far more frequently draws from the patient the word 'comfort,' than any other form of dressing. 'Yes, that is comfortable,' is a familiar expression after the application of a poultice. Poultices of course, like all other applications, are liable to abuse; and I think that years ago they lost favor chiefly on account of the reckless way as mere routine in which they were employed, the faulty manner in which they were too often prepared, and the length of time during which they were allowed to remain unchanged. But I venture to repeat that, when applied in appropriate cases, they give, so far as my experience goes, more comfort to the patient and satisfaction to the surgeon than any other substance. Moreover, in certain cases of unhealthy wounds and of foul discharges, they become a most convenient vehicle for the use of charcoal and other agents; and I for one, in spite of all our present proud array of antiseptics, should be sorry to lose altogether the help of the old-fashioned charcoal-poultice." So much for Mr. Savory.

In his address delivered at the opening of the Physiological Section, Mr. Henry Power said something very much to the point, which I shall quote:—"No doubt can be entertained that a better and more thorough knowledge of physiology should be possessed by the younger members of the profession than at present prevails. In my opinion, and I have had large opportunities of observation, I think that, considering the time at the disposal of the student, too many anatomical details are required in most examinations, whilst physiological knowledge is held in too light esteem. It has been argued that the study of anatomy is not only essential for the due and safe practice of the profession, but that it is an important means of education; that it is the one thing which is properly taught—the one thing that is well known in the preparation for the profession. Whilst admitting its value in this respect, and acknowledging the difficulty of drawing a hard and fast line defining what should and should not be known, I can not but think that the candidates for most of our examinations are asked points in anatomy which when known are utterly valueless; whilst if the same time and labor had been bestowed upon physiology, valuable information of a practical nature would have been acquired. Many candidates for our ordinary examinations are able to describe the course and relations of minute branches of nerves and arteries, a knowledge of which they will most probably never have occasion to apply, or if they have, they will have forgotten them; whilst, in regard to such important points as the nature and digestibility of different kinds of foods, or the more important phenomena of the functions of the circulation and respiration, they can give no intelligible account. It is, indeed, often objected that the whole subject of physiology is in such a state of fusion and transformation, that what was regarded as established on sure and irrefutable grounds one day is overthrown the next, to be replaced by some equally transitory theory; and the inference drawn is, that it is of little use to learn any physiology at all. The frequent repetition of this by those who should know better, has led to disastrous consequences: and I am convinced that a considerable number of men present themselves for examination who have paid little or no attention either to the lectures or to the demonstrations which are now excellently given at most of the schools; and have done little more than commit to memory the composition of such of the fluids and solids of the body as they think are likely to be asked, and which they, as a result, confuse in a very remarkable manner." The student himself often feels acutely the uselessness of the knowledge which he is compelled to possess on anatomical minutiæ before appearing at an examination table: and complains that what he has to learn is of no use to him in practice. The student would much more willingly study, if the subject of his study only bore on practice: he knows he is getting a stone when he asks for bread. But of this subject more anon.

This cold summer has kept down the death-rate, especially as to the deaths from hot weather maladies. A general practitioner writing to me the other day said, "What prospect is there for me with the death-rate at 17.1 per thousand?"

Clinic of the Month.

TREATMENT OF DELIRIUM TREMENS.—In "Flint's Clinical Medicine," just published, we find the following on the above subject:—The development of delirium tremens, if the premonitions be recognized, may probably often be prevented by either a full opiate, one of the bromides or the hydrate of chloral These remedies act by overcoming the sleeplessness, which is undoubtedly an essential factor in developing the disease. The importance of watching for the premonitions, especially in surgical and medical cases, is evident.

The important remedies are opium, alcohol in some form, chloroform by inhalation, and the hydrate of chloral, the bromides, digitalis and antimony. Opium given in large and enormous doses, as was formerly the practice, was conclusively shown by Ware to be pernicious. Sleep is the desired object, but narcosis is not a substitute therefor. It is hazardous to induce the latter. But an opiate, in small or moderate doses, is often useful. This remedy should be tried.

A quarter of a grain of the sulphate of morphia every four or six hours, or an equivalent of codeia or some other preparation, is the safe limitation as regards dose and intervals. Alcohol is relied upon by many, but opposed by some on the ground of moral considerations. The latter are of little weight. The patient will not be likely to resume the habit which has caused the disease any the more because alcohol may have conduced to the recovery. In the treatment alcohol should be given in moderate quantity, and suspended when sleep occurs. It is indicated especially when the patient is much enfeebled, and the pulse denotes cardiac weakness. The inhalation of chloroform may be tried, especially when the delusions induce extreme terror or violence of delirium.

It sometimes is useful, but more frequently it fails. The attempt to produce anesthesia is often resisted by the patient, and the violence of the delirium is thereby increased. The hydrate of chloral is more easily employed. It sometimes acts like a charm. Proper precautions are to be observed in the use of this remedy. The bromides may be given with much less reserve. They should be fairly tried. Their effect is sometimes excellent and sometimes *nil.* Digitalis is in some cases notably efficacious; it is indicated especially when the heart's action is frequent and weak. It is unnecessary to give this remedy in doses of from half an ounce to an ounce of the tincture, as may be done with safety; half an ounce of the infusion every two or three hours will secure all the benefit to be obtained from it. Antimony is suited to a certain class of cases, namely, those in which the symptoms are violent, and the patient robust, and the action of the heart strong. As a sedative remedy, it is notably effective in some of these cases. It should be carried to the extent of producing nausea. It may be advantageously combined with an opiate.

Good nursing has much to do with the speedy success of treatment. Attendants who have tact in calming the patient, a quiet room, avoidance of all excitement, sponging the face, head and body, the warm bath, the wet pack, or sometimes, if the patient consent, even the shower bath, contribute to the object of treatment—namely, sleep. Alimentation is highly important. As much nutritious food should be given as can be taken and digested. Tonic remedies, a nutritious diet, and hygienic measures to invigorate body and mind, will not only expedite recovery, but render much aid in preventing a return to the alcoholic habit.

NITRITE OF AMYL.—The exact amount of vascular dilatation produced in frogs by the inhalation of nitrite of amyl has been carefully investigated at Heidelberg by Dr. Gaspey, who has detailed the observations in Virchow's *Archiv.* On the uninjured tongue of the frog the dilatation occurred immediately in both arteries and veins, and increased during the first two minutes. The duration of the dilatation depended upon the duration of the inhalation; if the latter was continued for two minutes, the dilatation lasted from ten to fifteen minutes. The amount of dilatation was at least one-third of the original diameter of the vessel. The rapidity of the blood-current remained about the same; in the first movement after dilatation it appeared somewhat quickened, but always quickly returned to the normal. In order to ascertain whether the nitrite of amyl acts upon vessels which are already dilated by some other means, irrigation of the frog's tongue with a solution of salt was employed, which is known to cause dilatation of the vessels and retardation of the blood-current. Amyl nitrite was found to still produce its effect, although in less degree—amounting to about one-fifth of the original size of the vessel. Experiments on the effect of the amyl in distant parts showed that the changes in the web of the frog's foot differed somewhat from those observed in the tongue. The dilatation occurred in about the same time, but was slighter. There was an immediate but very transient increase in the rapidity of the blood-currents, followed by a distinct retardation. Another point investigated was the effect of the amyl on tissues in which inflammation is going on. Its action on an inflamed tongue was found to be essentially the same as on the uninjured tongue, thus confirming an interesting observation of Mr. Talfourd Jones that hemorrhage after injury may be increased by the amyl. Other observations on the frog's mesentery showed that the process of inflammation was not in the least interfered with by the inhalation. The migration of the white corpuscles was not lessened. It is known, however, by the experiments of Thorma and Appen, that as a rule, whatever accelerates the blood-current lessens migration, and whatever retards the blood-current favors migration. It seems, therefore, that the influence of amyl nitrite on the inflammatory process may be different according to the position of the part, since retardation of the current was observed in the frog's foot and was not observed in the tongue. (The Lancet.)

Curare in Hydrophobia.—Dr. Offenburg, of Munster, has lately treated with curare a woman who had been bitten by a mad dog. He did not confine himself to the usual small doses, but injected about two decigrams of curare under her skin in the course of five hours. The patient was in a terrible state, and seemed on the point of being suffocated when the injections were made. After the first injection the convulsion ceased suddenly. This was owing to the power which curare has of paralyzing motion. After a short pause, however, the convulsions began again, and several additional injections had to be made. At last the effects of the curare became so powerful that the patient was in danger of dying of paralysis of the heart and the respiratory muscles, and could only be saved by artificial respiration. She then fell into a state of exhaustion and weakness, from which she recovered after a time, and became quite well. (Medical and Surgical Reporter.)

A Pleasant Remedy for Toothache.—Dr. T. C. Osborn was applied to by a woman for relief from a severe toothache. He says:—"As there was no remedy at hand, I was on the point of telling her to call later at my office, or go to a dentist, when it occurred to my memory that there was in the house a vial of compound tincture of benzoin, which I had been using upon a young mother as a protection against sore nipples. After cleansing the decayed tooth, I saturated a pledget of cotton lint with the tincture, and packed it well into the cavity, hoping this would suffice for the time; and bidding her come back in two or three hours if she was not relieved. I was turning away, when she remarked that it might not be necessary perhaps, as the pain was already gone. But when I arrived at my office there were two other patients awaiting me with the same affliction, and I determined by way of experiment to use the same remedy. To my agreeable surprise both patients declared themselves relieved. During the winter a number of similar cases applied, and were instantly relieved by the same treatment, all expressing much satisfaction with the remedy." (N. Y. Med. and Surg. Brief.)

Notes and Queries.

Medical Colleges in Indiana.—A second medical college has recently been organized and is in operation in Indianapolis. A little more than a year ago Indianapolis had two medical colleges. Then in compliance with the wishes of many, possibly a majority, of the Indianapolis physicians, the two were made one by the active efforts of three or four excellent medical gentlemen of the city. That curious piece of mosaic, the Medical College of Indiana, was thus constructed; there were so many pieces, and therefore there must be so many places, no matter as to the size, color, or quality of the pieces, or the harmony of the whole. At least one of the gentlemen engaged in this constructive metamorphosis, believing their plans so wise, declared that no other medical college could be started in Indianapolis, at least for a few years. But they builded worse than they knew. In a year another medical college—of more curious mosaic still—is started in Indianapolis, its commencement and possible continuance being in part due to the mistakes made in the original organization of the Medical College of Indiana, to some mistakes made by the College itself and some members of its Faculty—mistakes we may one day have to point out in our own vindication. But we now pass from this topic.

Why should not Indianapolis have two medical colleges, or even three or four, when Fort Wayne has two! Two and two are four, and the Evansville school added, will give us a total of five Indiana medical schools. Surely five ought to be enough to furnish places for ambitious teachers, to work up all the Indiana material suitable for doctors, and to supply the wants of the people!

We recognize in the new school at Indianapolis, as well as in the one at Fort Wayne, some gentlemen of decided professional ability, and who will doubtless prove able teachers. Such men as Drs. Eastman and Smythe, for example, are too well known to our readers to require any endorsement of their teaching ability. But doctors away from these great centers of medical light and learning will ask themselves, if not others, how much is the profession at large benefited by this multiplication of medical schools? The truth is that outside of the little circles of immediate friends and supporters of these schools, the mass of the profession does not care a rush whether they all prosper and wax fat, or whether they repeat the drama of the Kilkenny cats, in comparison with the intense interest it feels in the subject of medical legislation. Let that legislation be such as will take from all colleges the right of granting diplomas, and it is a matter of indifference to the profession whether this state has one college or none, five or fifty.

A divorce between teaching medicine and the right to practice medicine, this journal advocated many years ago. It is one of the essential points in medical legislation. Such divorce obtained, and an honorable rivalry will exist among medical teachers, to make thorough students instead of to get large classes—students who will pass with honor the rigid ordeal of a licensing board. Without some check of this sort the multiplication of medical schools multiplies evils to the profession. It increases the number of medical students, and thus still further crowds a profession already overcrowded; it tends to lower the standard of professional qualifications, and does lower the honors, the rewards and the dignity of professional life. Will not the earnest strife for students, apparently rendered inevitable by this increase of schools, be followed by an indecent, base struggle for patients? Hunger makes even the cowardly wolf courageous; and it may make cowardly men bold, defiant of just laws and all rules of honor. A man steals a little personal property, and upon detection goes to the penitentiary. But a doctor may steal patients—steal them by false promises and lying assumptions, steal them by sneers at and slanders of his fellow-practitioners, steal them by an adroit use of his connection with some political, religious or social organization, or by other means not less artful than dishonorable—and he does not go to the penitentiary, or even to Coventry, where every honorable gentleman in the profession ought to consign him until he repents and reforms.

That a remedy for some of the evils now afflicting the profession is to be found in medical legislation, we do not doubt. But medical legislation ought to secure some control in the matter of medical teaching to state societies. Medical schools and medical teachers must be responsible in some way to the organized body of the profession.

In concluding this note, we express our regret that neither of the recently organized schools has had the wisdom to adopt the three years' course of instruction. The time is ripe for such an advance, and the profession would give it a hearty approval. Bellevue promises to follow next year the footsteps of Harvard and the University of Pennsylvania. But how much easier it would be for a college just commencing to adopt the plan, in full faith that the right must win in the long run, however discouraging the outset might be!

CHURCHILL'S TINCTURE OF IODINE.—Dr. E. D. Laughlin, of Orleans, Ind., calls our attention to the following formula for the above tincture in the Hospital Gazette, May 24, 1879:

℞	Iodin.,	ʒ j
	Potass. iodid.,	ʒ ij
	Aquæ,	f ℥ ss

He asks whether this is correct, or the formula which was given in this journal, November, 1877, which is:

℞	Iodin. pur.,	℥ ijss
	Iodid. potass.,	℥ ss
	Spt. rectificat.,	f ℥ xij
	Alcohol,	℥ iv

The latter is the correct formula, as given in the fifth edition of Churchill on Diseases of Women.

Dr. Hibberd's Circular.—Dr. J. F. Hibberd, of Richmond, Ind., has issued an address to the members of the Indiana State Medical Society, upon the subject of medical legislation. The Doctor was chairman of the committee appointed by the state society to procure legislation upon the Practice of Medicine, Drs. Helms and Hobbs being his associates. Dr. Hibberd prepared a bill which was presented to, but never discussed by, the legislature. The legislature, however, did pass a bill upon the subject—a bill originally prepared, introduced and earnestly advocated by Dr. Edwins, a representative from Madison county. The bill, however, was vetoed by the Governor, and then failed to pass over that veto. In Dr. Hibberd's address he introduces this bill, presenting several criticisms upon it, and asserting that its veto was right, while commending the general purposes of the bill. He then presents a syllabus of the other bill, and shows in what respects it differs from the Edwins bill.

Dr. Hibberd makes the following suggestions at the close of his address:

> To conclude, I think it would be best for county societies, in the consideration of this subject, to have at least three propositions before them, viz.:
>
> First. Is it good policy to have any law in Indiana regulating the practice of medicine?
>
> Second. The syllabus of the Edwins bill.
>
> Third. The other syllabus herein presented. If a majority of any society should decide that it was best not to have a law of the kind, still the society ought to determine what kind of a law they prefer if one is to be made, because a majority of other societies may vote to have a law; and if one is to be made, it is desirable that all should indicate what kind of a law they prefer.
>
> I should like to have returns from each society, distinctly stating how many voted for, and how many against, the first proposition, how many for and against the second and third propositions; and how many for and against any other proposition concerning the same matter that may be before the society.
>
> These returns should be in my hands as early as practicable, not later certainly than January, 1880; and those not in hand by the first of April may fail to be incorporated in the statistical report I desire to make to the State Society in May.

The address of Dr. Hibberd is timely and wise, and can not fail to meet the general approbation of the profession. It is to be hoped that county societies will act promptly upon the propositions presented. Let the profession of the state be earnest and united in the support of some definite medical legislation, and success is certain.

GALVANISM IN ACUTE SCIATICA.—Dr. E. L. Larkins, Terre Haute, Ind., sends us this report narrating a cure of sciatica by galvanism:

In November of last year I was called to see John L., who was suffering from acute sciatica of the right leg. He had been confined to his bed for three or four weeks previous to my first visit. He had passed through the hands of several physicians without obtaining any relief. He had used so much opium in the different forms that I could not convince him of anything except what *he* conceived to be right, so seriously had the narcotic affected him.

I put the patient upon quinia, morphia, and ext. aconite; but after due trial abandoned them. I then put him upon wine of colchicum seed, gradually increasing the dose until the physiological effect was produced, with relief of pain for a short time. I continued the remedy for some time, but found it of no avail. I used morphia subcutaneously for relief in exacerbations of pain, usually morning and evening. I then tried morphia by injecting it into the muscular substance. Subsequently I used a solution of morphia and atropia; no permanent relief. Counter-irritation was resorted to, but without relief.

Having tried the various remedies recommended, including large doses of spirits of turpentine, and obtaining no apparent benefit, I resolved to try electricity. Accordingly I applied the galvanic current, passing it from above downward; instant relief followed the first application. The pain returned next day, but nothing to compare to the former suffering. After three applications of the electricity, entire and permanent relief followed, nor has there been the slightest evidence of its return since. Warmth returned in a few hours to the entire leg, and the patient was enabled in a few days to be up and around the house. I directed him to apply the electricity two or three times a week for some time. Motion returned, and in a few weeks he was able to come to the office.

After the application of the electricity, I had some trouble in breaking up the desire for narcotics. When the opium was abandoned sleep seemed to have fled, and the wandering pains of the opium-eater racked his body. By exercise, good food and tonics, the bad effects of the drug were overcome.

I do not know that the electricity cured the patient, but the evidence is in its favor.

HYPODERMIC INJECTION OF MORPHIA.—Dr. H. H. Kane, of New York City, who has for some time past been collecting statistics on the hypodermic injection of morphia, will consider it a favor if members of the profession having had experience in the use of this instrument, will answer the following questions:—1. What is your usual dose? 2. Do you use it alone or with atropia? 3. What is the largest amount you have ever given at one time? 4. Have you had any inflammation or abscess at the point of puncture? 5. Have you had any deaths or accidents thus produced? 6. Do you know of any cases of the opium-habit from the use of this instrument?

In case of death, please give the results of the autopsy, if any was held. Any reference to journal or other literature on this subject will be thankfully received. All communications will be considered strictly confidential, the author's name not being used, unless permission to that effect is freely given. Address all communications to Dr. H. H. Kane, 366 Bleecker street, New York.

LECTURES ON DISEASES OF THE SKIN.—Dr. Bulkley will give a third course of Lectures on Diseases of the Skin in the Pathological Amphitheatre of the New York Hospital, 7 West 15th street, Wednesday afternoons from half past two to half past three o'clock, commencing Wednesday, October 8, 1879.

THE AMERICAN PRACTITIONER.

NOVEMBER, 1879.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

THE ELEMENTS OF SURGERY.

BY JOHN CHIENE, M. D., F. R. C. S. E.

Surgeon to the Edinburgh Royal Infirmary, etc., etc.

LECTURE IV.—SUPPURATION.

The Varieties of Pus: Laudable, Specific—Whence the Pus Corpuscle?—The Conditions of Pus—Causes of Suppuration: Internal or Predisposing, External or Exciting—Aseptic and Septic: Mechanical and Chemical—Examples—Putrefaction—Definitive Cause—A Fermentation—The Germ Theory of Putrefaction.

The last lecture was devoted to the causes, symptoms, and treatment of inflammation.* Inflammation is the result of the application of an irritant, which may act directly on the tissues to which it is applied, or indirectly through the nervous system. I have already described the local phenomena. I have tried to show how the injured part recovers. The return to health takes place by resolution, absorption, and organization. In connection with a wound, we term this the process of repair. If the action of the irritant is continued, if the inflammation is of a severe type, if the patient is weakly, or if the treatment is faulty, then recovery does not take place—a passage onwards and *downwards* takes place. The injured part can not stand still—either recovery or local death must take place. We have considered the recovery; we have now to consider the local death. There are three phases of this death—suppuration, ulceration, mortification—which differ only in degree.

---

* *Wildbad, Germany, August* 30, 1879.—An apology on my part is certainly due to the Editor, for my delay in forwarding to him this lecture in time for the September number. If any of his readers have noticed the break in the appearance of these lectures, it is but right that they should know who is to blame; perhaps they will forgive me when they note the place where this is written, and remember that it is a *health* resort of no mean repute.

Erratum.—For *antiseptic* read *aseptic*, in August number of the American Practitioner, page 75, thirteenth line.

Suppuration or the Formation of Pus.—It is not necessary to do more than mention the different varieties of pus. We have a standard pus,—viz, healthy or "laudable." (?) We have various departures from this standard; hence the terms grumous, ichorous, serous, curdy, specific, etc. It will generally be found that the greater the tension the thicker is the pus. It is serous in those cases in which the tension is slight. Some surgeons look on pus as a something to be courted—on its appearance as by no means an evil; hence the term "laudable." In a very limited sense they may, perhaps, be right. An epidemic of cholera or a war may be useful in clearing away the excess of the population; an attack of diarrhea may wash away some irritating material in the intestinal canal; a bleeding from the nose may save one from an apoplexy; a good sound thrashing may at times act beneficially, so also may a blister. These means are all *curative*, and require a preëxisting diseased condition; and in so far, and no further, may we look on pus as laudable. Let us, however, never forget that the appearance of pus means a waste of the tissues—a local death—a corpuscular death-rate, excessive in amount, which is to be likened to the excessive death-rate still prevalent in certain districts. Whenever pus appears it means a diseased wound, as certainly as a high mortality in a town means something wrong with the drainage or water-supply. We now have sanitary inspectors who, by *prophylaxis*, prevent a high mortality in districts under their charge. So also the surgeon can, by prophylactic measures—for example, a drainage-tube, antiseptic precautions—prevent disease in wounds, and prevent the necessity for the appearance of pus. I again repeat that a wound will heal without pain or any uneasiness whatever, if it is properly treated, and that the process of recovery by which a wound unites is not a disease, and that even "laudable pus" itself should not be looked on as a necessary evil.

The term specific pus is often used—(it is a cloak to ignorance); pus with certain peculiarities, as, for example, in a gonorrhea caught in the usual way. How different this disease from a purulent urethritis—the result, it may be, of excessive sexual intercourse, or the rough passage of a bougie. The difference has yet to be traced; it is a subject well worthy of study. One great difficulty in the investigation undoubtedly exists in the separation of the specific poison from the admixture of the causes of common putrefaction. Speaking from some clinical experience, I am inclined to the opinion that when a clap is cured in a few days, it must have been a simple urethritis, and not due to the planting of that specific something (undoubtedly endowed with life, and which may be called a germ), which gives rise to the common gonorrhea, which runs a course of four to six weeks as certainly as the crisis in typhoid fever is reached at the end of the third week.

It is not required that I should discuss here the question which must be solved by the pathologist,—Whence the pus corpuscle? Is it the result of the proliferation of the cellular elements in the extra-vascular tissues of the inflamed part—a doctrine first enunciated by Goodsir, and elaborated by Virchow? Is it, as Cohnheim and others teach, a white blood corpuscle, which has migrated from the vessels through the vessel walls? Is it a result of the proliferation of the white blood corpuscles after their escape from the vessels? That the white blood corpuscle does pass through the walls is an undoubted fact. That white blood corpuscles collect in inflamed tissues in great profusion is also very evident. What bearing these facts have on the origin of the pus corpuscle is still *sub judice*. In all probability both factors are at work.

In tissues, such as cartilage and cornea, the preëxisting cell elements, by their proliferation, supply the pus corpuscle; in vascular tissues, the migratory white blood corpuscle may be afterwards proved to be the pus corpuscle.

Pus, as we meet with it in the body, may be in one of three conditions—

(1.) *Aseptic,*—free from putrefaction, free from smell.

(2.) *Septic,*—putrid, with a more or less distinctly marked odor of putrefaction.

(3.) *Aseptic, but fetid,*—stinking.

The first condition is by far the most frequent—as in any unopened abscess. The second condition is met with in abscesses communicating with the external air, or with any of the canals in the body which contain the causes of the putrefaction. The third condition requires a word of explanation. In some abscesses (in the perineum, in the ischio rectal fossa, and sometimes in the iliac fossa, in close proximity to the intestinal canal), when opened, the pus has an intensely disagreeable odor. If the pus from such an abscess is examined microscopically, bacteria may or may not be present. In some none are seen; and if, in such a case, the pus, with aseptic precautions, is inoculated into a flask containing a sterile solution of Darby's extract of meat (a most putrescible fluid), no result follows, showing conclusively that the fetid fluid does not contain living causes of putrefaction. The stinking pus may be, in all human probability is, the product of putrefaction, just as the smoke from an ignited charge of gunpowder is the product of the gunpowder. In those cases in which bacteria are found, on opening an abscess, there must be either a communication with a canal containing them, or it may be that they make their way from the blood-vessels in which, in certain diseased conditions, they are known to exist. The fact that the causes of putrefaction seem unable to pass through the tissues from the intestinal canal into an abscess cavity near it, while the products of putrefaction pass with ease, seems to be another proof that the causes of putrefaction are *particulate* and not in chemical solution. Mr. Lister proved this with regard to Edinburgh drinking water, and drove another nail into the coffin of the theory that the causes of putrefaction may be found by, nay arise out of, a combination of chemical atoms.

Causes of Suppuration.—Any cause which gives rise to the primary inflammation will, if persistent or powerful, give rise to suppuration. (See Causes of Inflammation, American Practitioner, August, 1879, page 66.) An unsound constitution, an intense inflammation, the peculiar character of the inflammation, as in small-pox and some varieties of erysipelas, all rudimentary tissues as granulation tissue, may be taken as examples of *predisposing* causes to suppuration. They act from *within;* difficult to foresee, difficult to prevent, often interfering with the healing of a wound, they must never be forgotten. It is, however, different with the external causes acting from *without,*—local in their action, directly applied to the wound, it is much more easy to defend the wound from such an attack.

It is to these external causes that I desire to direct special attention. A clear understanding of these causes of suppuration will go a good way towards clearing away many misunderstandings regarding "Lister's Antiseptic Method," and will illustrate the principles on which the practice is based; understand the principles — being understood, the practice will follow. There is nothing which Lister has laid more particular stress on than this—"Understand the principles on which I work before you practice the art." Much confusion has followed and many mistakes have been committed by those who have not studied these principles, and who have supposed that the purchase and use of a spray-producer, the enveloping of the limb in layers of antiseptic gauze, after dosing the poor wound with carbolic lotion from a large syringe, is all that is required in order to carry out Lister's system. How often do they find that the wound suppurates; it would be a wonder if it did not.

The conclusion is arrived at "the system is at fault." But the deduction is an erroneous one. Suppuration may have resulted from the abuse of the means used. Carbolic acid is an irritant; apply it in a strong solution, or with a daily persistence, as many do, and suppuration will result. *Carbolic acid is the evil of the antiseptic system.* The less that gets to our wounds, the better for our patients; it must be used, and we must understand why it is used before we can use it properly. The Lancet, in the early days of antiseptic surgery, when the system was in its infancy, said, "Lister's arguments are getting stronger and his solutions are getting weaker." Lister's arguments were getting stronger *because* his solutions were getting weaker. He was gradually finding out that the strength of the carbolic acid could be diminished, and that he still could prevent putrefaction. He was diluting the evil without interfering with its efficiency; he irritated the wound less,—the wound healed more kindly. Hence the good results were more constant. Suppuration, in consequence of the carbolic acid, occurred less frequently than in the early days when it was used in too concentrated a form. Take a wound in a healthy man; stitch it up closely, allow the effusions no room for escape—these effusions, at first serous, soon become purulent: here tension is the cause of the suppuration—the retained effusions act mechanically on the tissues, and by their pressure they cause increased irritation—suppuration is the result. Apply too tight a stitch, soon a circle of redness is seen round the stitch, and if the stitch is not cut a drop of pus forms, the tissues break down, the stitch is loosened; here the pressure of the too tight stitch acts mechanically and causes suppuration. Apply to an open wound any irritant, such as nitric, sulphuric or carbolic acid, and suppuration will occur; the irritant here is a chemical one. Lastly, neither stitch your wound nor apply any chemical irritant, and the wound may suppurate. Here the suppuration is due to some irritant which has also been applied to the wound. We may not see it, although its consequences are soon very evident. Putrefaction has occurred.

Lister first showed that putrefaction can be prevented. He said prevent putrefaction, and you will prevent ONE of the causes of suppuration. He never lost sight of the fact that there are other causes of suppuration over which antiseptic precautions have no direct control; and he also showed that antiseptic precautions are a direct cause of one variety of suppuration — that, namely, which is due to carbolic acid. He adopted other means against these causes. He prevented tension by the systematic use of a drainage-tube; he took care not to stitch his wound too tightly, knowing well the evils of a tight stitch. He diluted the carbolic acid which he used. He undoubtedly used it too strong at first, but gradually he found out the strength which was necessary in order to prevent putrefaction. At one time he used the lotion too weak, but a few failures showed that he had gone too far in his anxiety to avoid irritation. He felt his way, and always keeping in view, on the one hand, the evil of too free a use of the agent, and, on the other hand, never losing sight of the great object he had in view in using it at all, he at last struck the happy mean, whereby he was enabled to prevent putrefaction, without at the same time applying too powerful a local irritant. It is a misfortune, and no one regrets it more than Lister himself, that the system ever received the name of the "carbolic acid system."

Surgeons thought, and some still think, that the more carbolic acid the better, forgetting that in this as in everything else — be it wine, be it food — we may have too much of a good thing.

I have thought it right to make these remarks, because a daily syringing of wounds is still called "Lister's treatment;" say in an amputation at each dressing, or in an abscess after opening, then suppuration occurs, and Lister has to bear the blame. Not a drop of carbolic acid should reach the cavity of a stump or an abscess cavity. The practice which will soon receive our attention will illustrate this. I would just ask why syringe your wound cavity? Is there anything mischievous in it that you want to destroy? Is it done to encourage healing? Is it used to wash away something hurtful? It is for those who use it to answer these questions. Let it be distinctly understood that Lister never advocated any such treatment. Carbolic acid must reach the wound during the operation. Carbolic acid lotion must be injected into the cavity of an accidental wound. After the drainage is introduced and the wound stitched up, then no more carbolic acid is to reach the cavity; it is hurtful to the healing process. If surgeons will inject carbolic acid at the daily dressings, then they must not say that they are following "Lister's method."

I have already mentioned the principal predisposing internal causes of suppuration. The external or exciting causes may be divided into the *aseptic* and the *septic*. Each of these divisions may again be divided into the mechanical and the chemical. We have, then, four varieties:

1. Aseptic mechanical.	2. Septic mechanical.
4. Aseptic chemical.	3. Septic chemical.

Examples of each will best illustrate the meaning of these terms. Sepsis is equivalent to putrefaction.

1. *Aseptic mechanical*—A chemically clean bullet or a thorn; a non-putrid slough or blood clot; aseptic effusion in a wound, be it serum or pus; pus in an unopened abscess; a chemically clean silver stitch.

2. *Septic mechanical*—A bullet or a thorn which carries in along with it the causes of putrefaction; a putrid slough or putrid blood-clot; putrid serum or pus in a wound; a silk stitch.

3. *Aseptic chemical*—Iodine; sulphuric, nitric, carbolic acid; caustic potash, etc.

4. *Septic chemical*—The products of putrefaction; sulphuretted hydrogen, ammonia and its compounds, carbonic acid, butyric acid, etc.

It is now necessary to say a few words regarding sepsis or putrefaction. Putrefaction is the series of changes which take place in substances containing nitrogen, when placed under the following conditions:

First, the vitality of the substance is gone or lowered; second, the substance is exposed to air or water at a temperature between 212° Fahr. and 32° Fahr. The vitality is gone when we die. The vitality is lowered when the tissues are injured. Exposure to the air is necessary. Tinned meats do not putrefy because they are not exposed to the air. Exposure to water is necessary. Meat or fish which has been dried is not prone to putrefaction. If the substance is kept above, or even near boiling point, it will not putrefy; so also if it is frozen, it will not putrefy.

We have next to consider the cause of putrefaction. If we examine putrid matter, we find in it numbers of rod-like bodies, which are termed bacteria. These bacteria are living; they have all the characteristics of life; they move, they propagate like bodies; they require certain conditions for their existence; they require more favorable conditions for their growth and propagation. They are seen in putrid matter. Are they the *cause* or the *result* of the change which is termed putrefaction? That they have something to do with the process is very evident. Putrefaction is allowed to be a form of fermentation, and we may liken it to the well understood variety of fermentation termed alcoholic fermentation. If to sugar we add the yeast-plant—a living organism—and keep it at a certain temperature, we find after a time that the sugar is converted into alcohol and carbonic acid; these are the products of the fermentation. We also find that the yeast plant is increased in quantity. The yeast-plant causes the change in the sugar, and it grows at the same time that the change is taking place. The bacterium is the yeast plant; the nitrogenous substance—say a solution of meat—is the sugar. The products of putrefaction—analogous to the alcohol and carbonic acid—are sulphuretted, hydrogen, carbonic, butyric, valerianic acids, ammonia and its compounds, etc. These products are the septic chemical irritants, and they result from the nitrogenous substance on the addition of the bacterium, in the same way that the alcohol and carbonic acid result from the sugar on the addition of the yeast-plant. The bacterium, then, is the cause and not the result of the sepsis or putrefaction.

Another question is mixed up with the origin of putrefaction. Do these organisms arise from parents, or can they be formed *de novo?* It is now hardly necessary to consider this question, as almost all are now agreed that Pasteur was right when he asserted that these organisms arise from parents, and that spontaneous generation is no more true of the bacterium than it is true of the yeast-plant, the maggot in meat, or the mite in cheese. When Lister proved that the causes of putrefaction are *particulate* and not in chemical solution, he made a great advance, and his experiments, to my mind, go far to prove that life can not arise without preëxisting life.

The *germ theory of putrefaction* asserts, first, that living organisms are the cause of putrefaction; second, that these organisms arise from parents; third, that they are planted in the substance which putrefies; fourth, that putrefaction is the result of the growth of these organisms in the substance which putrefies. Certain substances termed antiseptics interfere with this change, and they interfere by destroying the organisms which cause the change.

We have then to note that we have to deal with two factors, a living organism and a nidus for its life--a plant, and the soil in which it is planted. We will see, in the next lecture, that the growth of the organism can be interfered with in two ways. We may destroy the organism, or we may render the soil in which it grows unsuitable for its development. The object which the surgeon has in view may be likened to the daily work of the farmer in preventing weeds from growing on his land. The farmer either attacks and destroys the weeds, or mixes something with his soil which will prevent the weeds from growing. This is the problem difficult for both surgeon and farmer, and the solution of this problem is antiseptic surgery. In the next lecture, I will try and show that the surgery of the present day is a more or less perfect attempt to interfere with these organisms which cause putrefaction. The methods are very various. We will need to try and come to a decision as to which is the best.

UTERINE DISPLACEMENTS.

A NEW THEORY AS TO THEIR MECHANISM AND PROPER TREATMENT.*

BY GEORGE COWAN, M. D.

Mr. President:—It would argue a somewhat presumptuous spirit, and prove a serious waste of the time of this society, for your committee, and possibly for any one, to undertake the task of making a complete and exhaustive report of uterine displacements, at a time when the literature of the subject is so rich and full. Your libraries, and doubtless your minds too, are well stored with the accurate and graphic works of modern gynecology, in which are to be found all of the material facts of modern research and observation, far better arranged for your study and ready reference than your committee could ever hope to present them. Such a view, however, of our subject, turns our attention at once to the alternate horn of a serious dilemma which your committee has carefully considered and deliberately chosen.

Failing to find any satisfactory reason for presenting such a report, there could be but one other call or excuse for an effort upon the part of your committee to make any report whatever, and upon your part for the expenditure of your time and patience in listening to it. Your committee believes that the presentation of *a new idea*, or at least the honest effort so to do, is the only allowable plea for undertaking the task assigned him. Whether or not anything shall be presented which can be claimed to advance the progress of discovery, or to add one single new idea to our present stock of knowledge, it is for yourselves to determine. But as I have said, your committee could not feel authorized in occupying your time with anything less worthy of your attention than with some effort, made with singleness of purpose, however disastrous a failure it may prove, to throw some new light on this confessedly difficult subject. The bare recital of the well established facts of observation, already in the possession of the profession, no matter how well performed the task, might well be considered, both on the part of yourselves and any committee you might have selected, unnecessary, and a serious offense against good taste.

---

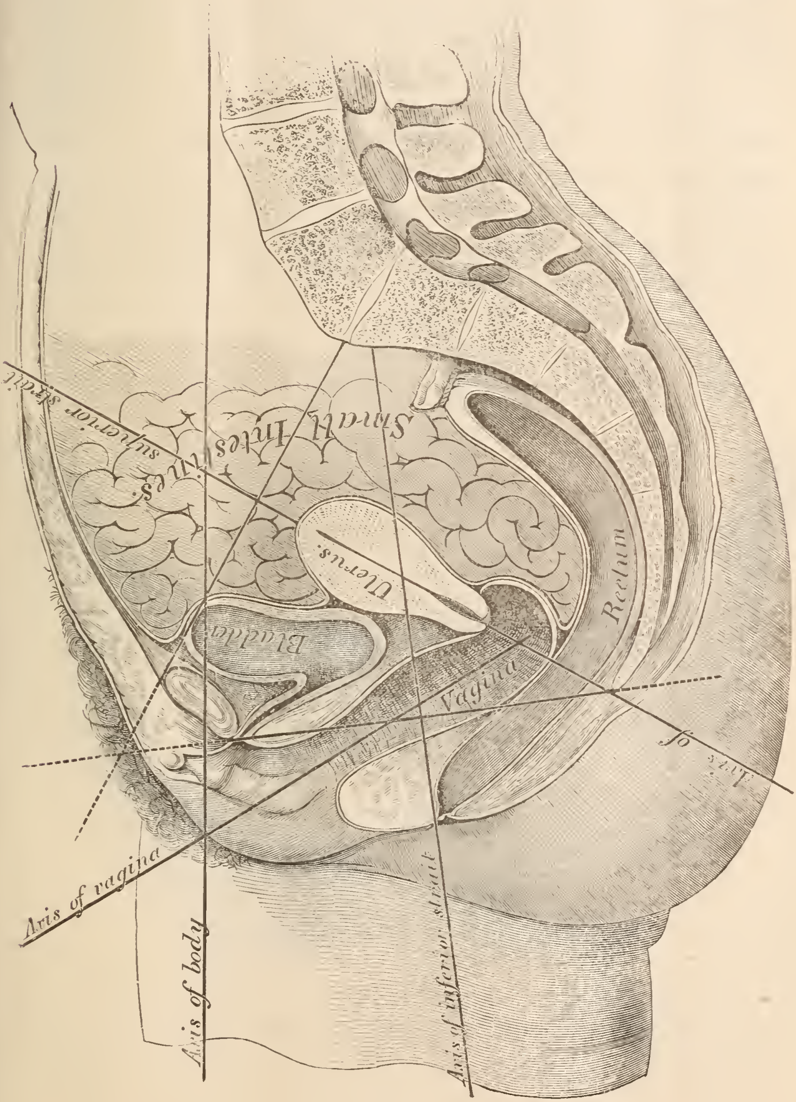
* Read before the Kentucky State Medical Society, May 15, 1879.

I shall therefore only state, or refer to, such of these facts as shall bear upon the elucidation of the proposition I shall try to maintain, and which without further delay I will now state and proceed to discuss.

I shall endeavor to prove, that in the etiology and management of the various forms of displacements of the uterus, those forces which are regarded by the best authorities as the principal natural supports of that organ, are in reality but *accessory* agents in effecting this end. By poising the organ on its proper axis, so as to receive to the best advantage the bearing of the force which supports it, these are subsidiary then to that force, which alone from the mechanism of the abdominal and pelvic cavities is capable of acting in antagonism to the law of gravity. *This force I announce is derived from the weight and pressure of those viscera of the abdominal cavity which overhang, or rather overarch the uterus; and are projected by the position and arrangement of their suspensory ligaments, against a series of planes, so as to fall into the pelvic cavity in front of the uterus and alongside of it.*

In support of this proposition, I beg to offer the following considerations deduced from an examination of the topography of the abdominal and pelvic cavities, and their contained viscera, as they are presented to us in vertical sections of these cavities.

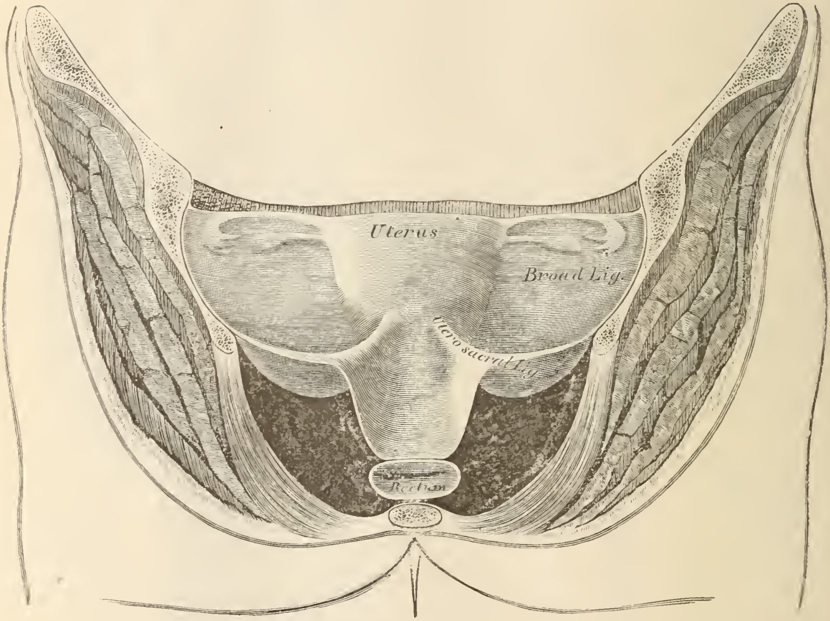
It is true we only have one such section ever made, and presented to us in anatomical works, in a diagram, and this passes through the mesian line. In reasoning out the effect of the weight and pressure of the intestines as they are acted upon by the walls of the abdominal cavity, and as they are presented to the eye in this one diagram, we must bear in mind that a variety of vertical sections passing through the center of this great abdomino-pelvic cavity is required, to present to the mind's eye, a correct idea of the true relation of the various contents of this cavity, one to another, and to its parietes.



No. 1.

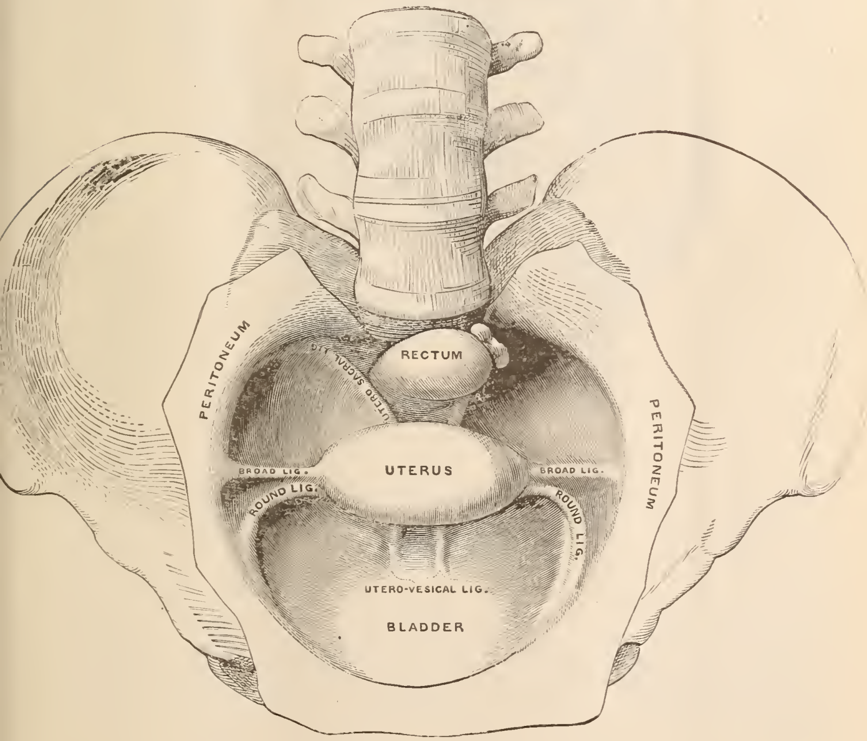
Keeping these suggestions in view, we will now examine these enlarged diagrams of Prof. Hodge, and of Dr. Breisky, which I have had placed on the wall, in order to illustrate the position I have taken as regards the natural support of the uterus.

We have here a view of the viscera of the pelvic cavity in vertical, horizontal, and partly oblique sections. In plate No. 1, from page 237 of Prof. H.'s work, we have displayed, according to his theory, "the natural position of the pelvic viscera." It is desirable to call particular attention, in this diagram, to the line which represents the axis of the body. This line, commencing at the junction of the second and third lumbar vertebra, is let fall as a perpendicular upon the symphysis pubis, which it strikes upon the inner surface, passing through its center. Observe also the angle which the axis of the vagina is represented as making with the axis of the superior strait and uterus, measuring about sixty degrees.



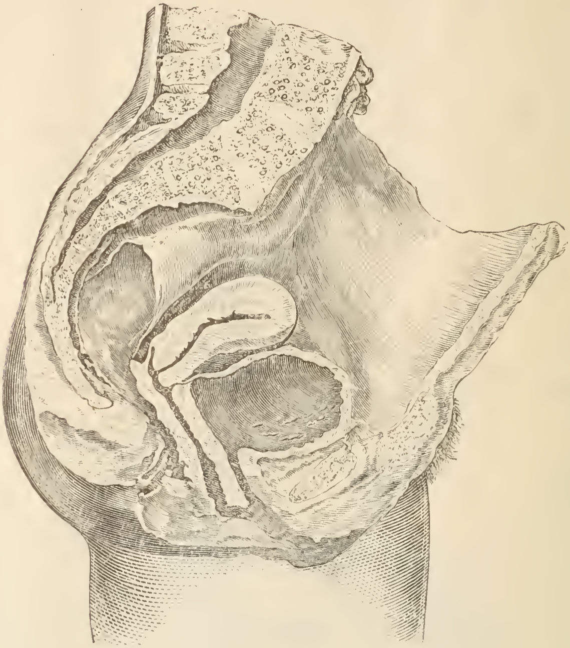
No. 2.

The great space between the rectum and uterus, occupied by a portion of the small intestines, is also particularly noticeable. In plate No. 2, from page 242, same author, we have a posterior view of the uterus and its ligaments. The section here made through the pelvis must be an oblique one, on account of the lines of attachment of the broad ligaments to the inner surface of the pelvis, just in front of and parallel with the anterior edge of the great sacro-sciatic notch. In No. 3, taken also from Prof. H.'s work, page 243, we have a view of the uterus and its ligaments, and of the rectum; and are supposed to be looking from above down into the pelvic cavity, so as to see the fundus of the uterus presenting towards us in the axis of the superior strait. We have also a view of the position of the uterine ligaments, the bladder and



No. 3.

rectum. Thus viewed, it will be seen that the uterus and broad ligaments constitute a partition which divides this single cavity into two chambers; the larger or anterior one containing the bladder and the uterus, the posterior or smaller one containing the rectum. In No. 4, we have a diagram, taken from page 33 of Prof. Barnes's work, first edition, after Breisky, and is termed by Prof. B. "a longitudinal section ot the pelvis." It is also a vertical section like the one of Prof. H., made through the mesian line. In this diagram the utero-rectal interspace is very much smaller than in Prof. H.'s diagram: the angle made by the axes of the vagina and of the superior strait is much larger (about eighty-three degrees), while the bladder and uterus are represented as lying packed closely together. Breisky's diagram is after an actual dissection.



No. 4.

Now the viscera which mainly furnish the supporting pressure of which I have spoken, are the small intestines, the transverse colon, the greater omentum and the bladder. The force of this pressure is guided and controlled by a series of planes, which are made up of various portions of the inner surface of the two cavities. They reflect it from one to the other, in such a manner that it finally presses backwards and upwards against the obliquely placed partition which the uterus and its outstretched broad ligaments make in the cavity of the pelvis. A pressure directed backwards and slightly upwards against this partition, or even transversely to it, keeping in mind the obliquity of its plane, will support the uterus, somewhat as a kite rides up against a transverse or slightly ascending current of air, or as a buoy floats in water.

The viscera referred to, with the exception of the bladder, are attached, as is well known, so as to be very movable; and their contents—being composed of solids, liquids, and gases—may be, in average specific gravity, estimated as being about that of water. The pressure, therefore, which they exert is a hydrostatic pressure, and is therefore amenable to the law of hydrostatics, that the pressure of liquids is transmitted equally in every direction. The intestines, serving as a tubular receiver of this fluid mass, lie packed away in a column in the anterior portion of the abdominal cavity, folded up in a series of coils one upon the other, readily gliding about over each other in every direction, in response to the slightest degree of muscular contraction or respiratory movement; while the bladder serves as a watery cushion or wedge-shaped base upon which the column rests, by which it is wedged backwards and upwards underneath the uterus.

The planes which serve to direct the viscera in this curvilinear direction from above downwards and backwards, are three in number, and are constituted as follows: The first one in the series is made up by the anterior surfaces of the ninth, tenth, eleventh and twelfth dorsal, the first, second and third lumbar vertebræ, and by the contiguous lateral surfaces of the abdominal cavity. The second one is made up of the lower, anterior and inner surfaces of the abdominal cavity, and by the inner surfaces of the symphysis and the pubic bones. The third in the series will be constituted by the inner surfaces of the rama of the ischium, and by the anterior and upper surfaces of the perineum and the adjacent and upper surfaces of the vagina and rectum. These latter structures are supported by the os coccygis and lower portion of the sacrum, which give to them a concave surface looking backwards and upwards. This last plane constitutes mainly the floor of the pelvic cavity.

Considered as a whole, the abdomino-pelvic cavity is a cylindrical body, bent upon itself; so that a force, directed from the upper and posterior surface, which is convex, directs it forwards and downwards, so that it is received on the anterior and lower surface, which is concave, and which looks backwards, downwards and upwards, and along which direction the force must travel until it is finally arrested by the posterior wall, which is made up of the sacrum and coccyx.

Taking the planes separately, the first one enumerated in the series being a convex surface, projects the semi-fluid movable contents of the abdominal cavity forwards and downwards, the point of attachment of the mesentery and its fan-like expansion being such as to favor the canting forward of the weight and pressure of the viscera upon the second plane. This second plane, the lower anterior, and inner surface of the abdominal walls, receiving the pressure, in turn reflects it backwards in its downward course through the bladder and vagina upon the third, of which the anterior and upper surface of the perineum is the principal surface; whence it is reflected directly upwards and a little backwards against the uterus and its outstretched broad ligaments, which are wedged or buoyed upward in their position by hydrostatic pressure against the rectum and a moiety of small intestines, supported by the sacrum and coccyx.

The uterus in this position is not unlike the keystone of an inverted arch, the keystone being placed upside down; that is, the thick end of the stone uppermost. As the column of intestines presses down upon the dome-shaped roof of the bladder, the uterus being pyriform in shape, and tethered in front by the vesico-uterine ligament, and moreover being held firmly in the axis of the superior strait by the combined action of the broad ligaments and the ligaments attached to the cervix in the rear as well as the front, against this pressure bearing down in front and underneath it, there is no tendency for it to retreat in any direction except upwards and forwards; whereas, if it were placed as a true keystone of an inverted arch, the thin edge of the wedge upwards, the pressure would tend to displace it backwards and downwards.

Such, then, is the theory of the natural support of the uterus, which I have made bold to offer in place of the various conflicting views entertained by gynecologists and by the profession at large.

With all due deference to gynecological authorities and for the general opinion of the whole profession, I can not accept such conflicting views as, from time to time, have been put forth; and I will now take the liberty to review and criticise them. An impartial review, I believe, will show that they are not in accordance with the laws of mechanics, and that the explanation of the problem of the natural support of the uterus, as generally received, is in a very unsatisfactory condition.

Prof. Hodge, at page 240 of his work on Female Diseases, maintains that "there can hardly be a doubt but that the proper position of the uterus is maintained chiefly by the ligaments." Among quite a number of *accessory* agents enumerated, he gives the greatest prominence to the pressure of the small intestines upon the uterus, as the most influential agent of this class in maintaining that organ in its proper position. The following, on page 247, is his explanation of the agency of this force:—"The mesentery, connecting the small intestines with the posterior part of the abdomen, admits of so much mobility of these intestines as to allow them to fall freely into the cavity of the pelvis, which they do whenever this cavity is not fully occupied. Hence, they are found in front and also behind the broad ligaments; much the larger portion is usually found behind. . . . Hence, it clearly follows that the small intestines behind the uterus, when this organ is *in situ*, and the bladder not inordinately distended, act as an almost insuperable impediment to retroversion of the uterus. The natural obliquity of the womb is, therefore, maintained by the weight and pressure of the intestines."

At page 334, when explaining the *modus operandi* of his celebrated pessary, he more fully and completely illustrates the views he entertained as to the agency of this pressure. When properly introduced, the pessary performs, according to Prof. H., "the part of an *elevator*. It operates as a lever in elevating the fundus from its malposition against the sacrum to its normal position behind the bladder; that portion of the pessary which is posterior to the neck of the organ being the 'short arm,' while all anterior to the neck is the 'long arm,' and the 'fulcrum,' or support, is the posterior surface of the vagina. As the long arm or horn is depressed by the finger of the practitioner, the short arm rises and carries with it the body and fundus of the uterus.

"This elevation being accomplished, the pessary maintains the organ in this position. It acts as a *supporter*, *for the intestines now fall once more on the posterior surface of the uterus, and press this organ against the long arm of the lever, that is against the horns of the pessary; so that when the woman strains, the horns are depressed towards the rectum, and the bar of course rises behind the uterus. The condition of the patient is entirely changed; for, standing and walking, which before were painful and distressing from the pressure of the intestines on the anterior surface of the uterus, increasing the displacement, is now useful, as the pressure of the intestines is transferred to the posterior portion of the organ impelling the fundus forwards towards the pubis.*"

I have taken the liberty of italicizing the foregoing paragraph, with the exception of the word "supporter."

Prof. Barnes, page 33, (first American edition), of his work on Female Diseases, claims "that the uterus is held, slung or suspended by different folds of the peritoneum, and by muscular bundles principally situated in these folds;" and also that "being closely connected with the bladder, fallopian tubes, rectum and vagina, *these structures concur* in maintaining the position of the uterus." (The italics are again mine.) Yet, in the concluding sentence of this paragraph, he adds these strange and, as it appears to your committee, inconsistent statements, as follows:—"The broad ligaments do not prevent the uterus from inclining backwards or forwards; they are never fully on the stretch, and allow the uterus to be sensibly lowered without being dragged upon, and can only resist lateral deviations." Of the round ligaments, he says, "they are never on the stretch, and can not resist displacement of the uterus." Of the utero-vesical ligaments he remarks, at page 36, "the experiments of Malgaigne seem to demonstrate that these ligaments form the principle obstacle to the falling of the womb towards the vulva."

Prof. Thomas, page 320, third edition, Diseases of Females, holds to the view that "the most demonstrable and important of these means is unquestionably the vagina." Next in importance, in his estimation, are "the surrounding investments of areolar tissue, and the utero-sacral ligaments;" and the experiments of Dr. Henry Savage are cited as sustaining his views.

With all due deference to these illustrious and learned authorities, I beg leave to dissent from their views, and to offer a few objections to the acceptance of their conflicting theories.

And, first, of the ligaments. A ligament is a very flexible structure, the principal function of which is to bind together various parts, as the bony members of a joint, or to support in their proper places various of the viscera in the cavities of the body. In the latter instance they are called *suspensory* ligaments; that is to say, they suspend a weight. To accomplish the suspension of the weight of an abdominal or pelvic viscus, however, they must find some point of attachment in the abdominal cavity, *above* the viscus to be suspended; and must act in a direction coincident to some extent with the line which marks the axis of the body to be suspended. The falciform ligament of the liver, and the lesser omentum, are true suspensory ligaments to the liver and stomach; the mesentery to the jejunum and ileum, and the meso-colon to the transverse colon; but in no such sense can the six, or possibly eight, ligaments which proceed from various points of origin on the uterus, and pass off transversely to their points of attachment, be said to act as suspensory ligaments. The lateral ligaments do not find points of attachment on either side of the pelvis at points any higher than the fundus of the uterus: the round ligaments, when the person is in the erect position, find points of attachment which are *lower* than their points of origin on the surface of the uterus; while the vesico-uterine, and the recto-uterine, attach the neck of the uterus—the one to the bladder and the other to the rectum—so that the neck can not vibrate backwards towards the sacrum, or forwards to the symphysis, only within certain bounds. None of them are in a position to oppose displacements downwards, the first step in all displacements of the uterus If the lateral ligaments were constructed of some rigid material like bone, we could then see how it might sustain a weight attached transversely to its axis. They are, however, simply folds of peritoneum, inclosing within their duplicatures bundles of muscular fibre, and are readily unfolded in pregnancy until they disappear upon the sides of the uterus, while the muscular fibres have become enormously elongated. When we consider how a very weak force, constantly acting, will readily overcome a muscular resistance many times greater, we can not reasonably expect any support whatever from any of the ligaments, except as *accessory agents:* especially is this true in view of their transverse attachment.

It is claimed, however, that Dr. Savage's experiments have settled this question of the support obtained from the ligaments. They do prove something, but it is just the opposite conclusion from the one claimed, as will be readily seen on a candid examination of the various steps in the experiment which he made. With a strong vulsellum hook he forcibly dragged the uterus *downwards* as he claims, but as the account which he gives of it shows, it was also displaced at the same time *forwards.* When he had made the uterus descend one and a half inches, he found that the utero sacral ligaments had been put well on the stretch, and that the whole body of it was now sunken *forwards* also, displacing to some extent the bladder so as to be embraced partially by that organ. Dividing the utero-sacral ligaments, "the uterus yielded rather suddenly another inch." And finally, when the uterus was dragged half out of the vulva, *then, and only then,* was it found that the broad ligaments were in the way of its further descent. These being divided, complete procidentia was finally effected.

The only logical conclusion from all of which is, that these so-called supports of the uterus never come into requisition as *primary* supporting forces, as long as the uterus remains in its *normal* situation; and not until it is displaced downwards and forwards, at least an inch and a half in direct descent, is any decided obstruction on the part of the ligaments met with, most of which is developed by its *forward* displacement. Manifestly, then, the combined result of the action of these forces can not be *suspension* of the uterus, but the *poising* of that organ on its proper axis, and the supporting power must be sought for elsewhere. The ligaments, like the guy-ropes of a suspended weight, or the stay-chains of a suspension bridge, merely prevent undue lateral deviations.

We will, in the next place, consider the adaptation of the vagina as a means of support. "The vagina," to quote Prof. Hodge, "is a soft, flexible, and distensible canal of a flattened form, having no firm attachments excepting at its lower extremity. Experience also shows that it accommodates itself to the ever-varying position of the cervix and body of the uterus, connected with its upper or sacral extremity. It, therefore, is lengthened out in pregnancy; it is shortened or curved in the various displacements of the organ; sometimes it even protrudes at the vulva, and descends with the uterus between the limbs." It should be remembered that in addition to this, the axis of the vagina forms an angle of nearly ninety degrees with the axis of the superior strait, which is also the axis of the uterus; it is therefore not within the line of support, but is placed transversely to it, at about a right angle. It is impossible, therefore, in view of its construction or position, to consider the vagina as one of the supports of the uterus.

Finally, we will consider the theory of Prof. Hodge, of the maintenance of the uterus in its proper position by the pressure of the intestines, as an accessory agent.

On pages 239 and 247 of the work already referred to, he writes as follows:—"The small intestines descend not merely from gravity, but are pressed firmly into the unoccupied portions of the pelvis by the contraction of the muscular walls of the abdomen in every movement of the individual. . . . The uterus is subjected to great pressure from the weight of the small intestines, which is greatly increased by feculent accumulations in the large intestines, especially in the sigmoid flexure of the colon, by tympanitic distensions, and especially by the contraction of the muscular parietes of the abdomen, in all of the efforts of walking, running, standing, straining in defecation, vomiting, sneezing, coughing, lifting weights, etc."

From these statements it is evident that Prof. Hodge regards the weight of the superincumbent viscera more as a displacing than a supporting force; for, in speaking of the weight of the intestines upon the uterus, he concludes the paragraph of one of the foregoing quotations we have made from his book, as follows:—"It is no wonder, therefore, that we hear of displacements of the uterus; but rather that the natural position of the womb, can, in any individual, be maintained against such great and constant weight and pressure." Further on, at page 291, in speaking of the difficulties met with in all artificial or mechanical arrangements for maintaining the uterus in its natural position, he says:—"There is always present the opposition from the weight of the superincumbent viscera and the great pressure from the abdominal parietes, under the ever-varying positions and motions to which the body is subjected."

As an objection to this position of Prof. Hodge, that there is a constant force at work tending to displace the uterus which is derived from the weight and pressure of the intestines, I think it proceeds from the statement that much the larger portion of the small intestines are usually found *behind*, and bearing down upon the fundus and posterior surface of the uterus. This must be an anatomical error. In the cadaver, lying upon the dissecting-table, with the abdominal cavity freely opened, this might be true, and it is not unlikely that Prof. Hodge makes his statement from some such investigation. But in the living woman, especially when walking erect with head and shoulders poised backwards, it is impossible to understand how any very large quantity of small intestine can find its way into the posterior division of the pelvic cavity,—and indeed in any position, so completely occupied does the whole pelvic cavity seem to be by the bladder, uterus and its appendages, and by the rectum; and especially by the overarching projection of the sacral promontory, and its oblique position in the pelvic cavity, is the uterus protected from an appreciable weight of intestines resting upon its fundus or posterior surface. Besides, we must bear in mind that the point of attachment of the mesentery is such that it must direct the weight of all of the very movable abdominal viscera forwards in a line of descent, which overarches the uterus, and deposits the hydrostatic pressure of the viscera and their pultaceous, watery and gaseous contents, upon the dome of the bladder, the concave surface of the abdominal wall below and in front having reflected a portion of the burden backwards with that which directly falls upon the bladder.

Particularly and most forcibly is the theory which I advocate necessary to understand the principle upon which the lever pessary of Prof. Hodge is constructed; and no other view of the natural supports of the uterus can explain the *modus operandi* of this mechanical appliance. Its illustrious inventor has rightly called it the *lever* pessary, and in no extravagant terms does he enumerate the brilliant results which it can certainly accomplish when rightly applied. When adjusted for any form of displacement, but especially in prolapsus and retroversion, the long arm must rest underneath the bladder, the fulcrum—which is a *point*, and not a surface, and is placed just where the two curves of the long and short arms meet—must rest just opposite the cervical canal on either side. Thus arranged, the short arm and bar of the instrument will be found behind the cervix and pressing upwards between the posterior surface of the displaced uterus and the rectum. Just here, with much deference to the great and justly honored name of Prof. Hodge, we feel called upon to question the correctness and accuracy of his views as to the *modus operandi* of his pessary. His *point* for the "fulcrum" of the lever is the posterior surface of the vagina, and the resistance to be overcome he makes the propelling power! For most strangely, as it seems to your committee, he derives the force which depresses the long arm of the lever backwards towards the rectum from a pressure on the fundus and body of the uterus, this organ being pressed upon by the small intestines, as he claims, from behind, where as he states the larger portion of them are to be found. Even if this statement of the position of the small intestines were true, he is greatly in error; for if we can understand how a man, standing on the extremity of the short arm of a lever, can, by seizing hold of the long arm, elevate himself, the explanation given by Prof. Hodge of the lever movement of his pessary may be comprehended. Now, practical experience with the use of the lever pessary has convinced me that the long arm is in reality forced down towards the rectum, causing the short arm and bar to ride upwards and backwards behind the uterus, carrying it obliquely forwards and upwards in the direction of the axis of the superior strait. Such a force does exist, and it is one which is capable, to some extent, of readjusting the lever as the resistance is overcome, constantly keeping the pessary retreating backwards and upwards as the displaced organ rises into place. Now, inasmuch as the long arm of the lever, when the pessary is rightly adjusted, is placed immediately underneath this column of hydrostatic pressure from the bladder and intestines, it would seem to be conclusively demonstrated that the force which is applied to the lever can be derived from no other source whatever, except it be from the downward pressure of this large and long column of fluid-like mass contained in the viscera, in the anterior portions of the abdomino-pelvic cavity.

Furthermore, the greater frequency of displacements, and the peculiar character which they present in women who have borne children, tend to prove the proposition I have announced. In such cases, displacements are always accompanied with more or less pendulousness of the lower part of the abdomen, by which means it happens that the contents of the cavity, instead of being poised over and resting upon the bladder, fall too far forward to furnish the requisite support for the uterus in whose walls are to be found the products of inflammation, or engorgement, or in a condition of subinvolution.

In those, on the contrary, who have never borne children, displacements are comparatively infrequent, and occur from such causes only as severe falls upon the nates, violent coughing, epileptic convulsions, etc. In these instances, the abdominal walls preserving their natural contractility and contour, a reduction of the displacement effects, with a short rest in the horizontal position, a complete cure—the natural support of the uterus (the normal contour and contractility of the abdominal muscles) having never been disturbed. Recovery proceeds in such a case, just as it does in a recent dislocation of a joint which has been promptly reduced.

Finally, it would seem that it needed no labored argument to show, that the evacuation of the pregnant uterus at term of its contents, would leave the fleshy walls of the cavity of the abdomen and the floor of the pelvis in such an extreme degree of over-stretching and distension, that the bearings of the various planes of both cavities to each other, and upon the contained viscera, would be found greatly altered, and the relation of them as a whole to the uterus much disturbed.

I maintain, then, that the weight of the movable, fluid-like contents of the abdominal cavity does not, as Prof. Hodge argues, tend to disturb the equilibrium of the organs of the pelvic cavity; but that by reason of the obliquity to each other of the axes of the two cavities, the weight of the intestines, and the pressure of the abdominal walls upon them, are converted by the peculiar mechanical arrangement which has been described into a conservative supporting influence, which is the only support of the uterus capable of demonstration.

If the theory which I have advanced as to the natural support of the uterus, and the etiology of displacements, be correct, the principles upon which the treatment of all displacements of the uterus should be based are easily deduced.

And, first, as to their prophylaxis. Immediately after parturition, to guard against the occurrence of these troubles, a neatly-fitting abdominal bandage or corset—not the old conventional obstetric binder—should be accurately fitted to the patient, and worn for months after getting up from her lying-in bed. As the abdomen subsides, the bandage should be readjusted from time to time. It should be so fitted as to give equable and uniform support to the over-stretched abdominal muscles, and also at the same time restore as nearly as possible the natural contour and symmetry of the abdomen. The pardonable pride which all women feel in preserving their forms, will create a ready coöperation upon their part in the adjustment and wearing of a suitable appliance, and, under the instruction of their physician, many of them have the requisite skill to construct them. But a skillful instrument-maker, when his aid can be secured, will make the most efficient and comfortably fitting supporters. Besides restoring the shape, and relieving the overburdened muscles of a weight which interferes with the recovery of their tonicity, the utero-abdominal supporter acts as an artificial fascia to the muscles it compresses, and thus gives tone and efficiency to their contractile efforts.

The antiquity and universality of the use of some form of bandage under a variety of names, not only under the guidance and direction of physicians themselves, but also by women, who have ascertained the need of such support by instinctively elevating and pressing in with their hands their pendulous and bulging abdomens from below upwards, has demonstrated that the beneficial results of its use are too well established to admit of doubt. It, however, requires nice and skillful adjustment. In the instrument stores are to be found a great variety, in both material and form. As a test of the proper adaptation of any one which may be selected, I would suggest the following experiment: Let the patient stand against a wall, firmly supporting herself against it. The physician now kneeling, or seated on a low stool in front of her, passes his hands up underneath the clothing, and adjusts them so that the ulnar side of the hand occupies each groin, the palms and extended fingers embracing the lower portion of the abdomen, and taking care to approximate his thumbs together firmly side by side just at the mesian line and above the symphysis, he gently elevates and presses backwards the lower part of the abdomen, until he finds the position of the walls which gives the greatest relief. He should then apply his apparatus with the end in view of making it elevate and compress in the same manner. A perineal strap and pad may be necessary to complete the apparatus.

In moderate forms of displacements, the bandage or utero-abdominal supporter, as it is often called, is sufficient of itself in many cases to afford complete relief; but in marked anteversion, prolapsus, and retroversion, the combination of the bandage with Thomas's or Hewitt's anteversion and Hodge's lever pessaries, will be found of the greatest value. These pessaries not only serve to transmit the pressure of the intestines, and apply it properly, but they splint and brace up, as it were, the weakened pelvic floor which, like the abdomen, is bulged out from its proper place. I doubt not but that with the aid of a skillful instrument-maker, a nicely constructed curved perineal support of *hard rubber*, which would be movable, could be adjusted to the abdominal bandage and made to conform to the pelvic floor, and to the inner sides of the buttocks and thighs, so that it could be worn without chafing, and at the same time serve to elevate the downward bulged contour of the floor of the pelvis,—fitting and pressing upward under the pelvic cavity as the arm-piece of a crutch presses into the axilla. Of course, in every application of an utero-abdominal supporter, it is to be understood that as complete a replacement has been made as the circumstances of the case will admit of.

The field of my observation, being in general practice in the country, is too limited to be of any value in a tabulated form. Quite a number of cases, however, directly and indirectly, have come under my observation, where the bandage has, alone and combined with pessaries, given most marked relief in the treatment of displacements. In one instance, where pessaries in the hands of accomplished gynecologists completely failed, an abdominal supporter somewhat of the form of the one known as the "London" supporter, gave permanent and complete relief.

Of those who condemn utero-abdominal supporters, we believe the most of them do so, as Prof. Hodge has done in his work on Female Diseases, merely on theoretical grounds. While admitting their practical value, he condemns them because he can not accept the explanation of their *modus operandi* by those who advocate their use. The explanation, on their part, was doubtless erroneous. These advocates of the bandage claimed that it relieved displacements by so forcibly constricting the abdominal cavity as to intercept the pressure and cut it off from descending to the pelvic cavity; or, in other words, it prevented transmission of the pressure below the line embraced by the bandage. The error in the theory of its use is, however, of no avail against the practice.

Trusting that the theory advanced may be tested by the profession, I leave it in their hands for a trial.

NOTE.—It affords the author great pleasure to acknowledge his indebtedness to Mr H. C Lea, publisher, Philadelphia, for his kindness in granting the use of the electrotype plates used in illustration of the views inculcated in this paper.

DANVILLE, KY.

A CASE OF ARTIFICIAL ABORTION FOR RELIEF OF UNCONTROLLABLE NAUSEA AND VOMITING, WITH REMARKS.

BY M. H. JORDAN, M. D.

Mrs. C. H. S., aged twenty-four years, with a good family history, enjoyed excellent health until three or four years ago, when she received a fall by a chair being jerked from under her. Since which time she has suffered from a displacement of the uterus, complicated with a cystitis and reflex irritation about the rectum. This lady was treated for these troubles several years ago by Dr. E. W. Jenks, of Chicago, but removed to this state before a complete cure was established. The subject of this paper, although suffering from uterine, cystic and rectal troubles, married about eight months ago, and in three or four months became pregnant.

On June 23, 1879, I was telegraphed to visit Mrs. S. at her home in Shelby county, Alabama, and learned that she had been confined to her bed for five weeks, with a distressing and uncontrollable nausea and vomiting. She was much emaciated, very nervous, with a quick pulse, some fever, and retained comparatively nothing on the stomach, and had but little quiet and undisturbed sleep either day or night. There was great soreness over the stomach and abdomen, and the act of vomiting was frequent and distressing.

I tried all of the remedies that are usually given in such cases with negative results; and in order to secure a night's rest I administered one-fourth of a grain of morphia hypodermically, but it seemed to increase the nausea and vomiting, and produced such alarming nervous symptoms that I was deterred from again attempting its use. Among a large number of other drugs, I gave large doses of the bromide of potassium and hydrate of chloral by enema, with no other result than to increase the local irritation already existing in the rectum, and causing additional pain and constitutional disturbance.

Being baffled and disappointed thus far in everything, I concluded to try a remedy that I believe was first suggested by Dr. J. Marion Sims—that of applying nitrate of silver to the uterus. Accordingly a Sims's speculum was introduced, and a thorough application made to a reddened and inflamed os and cervix uteri; but this remedy produced no other effect than a slight discharge from the vagina for several days.

Seeing that the patient's condition was growing more critical and her strength failing day by day, I concluded that the time had certainly arrived to attempt an abortion. So accordingly I passed a sound to the fundus of the uterus. I felt sure that this would end my trouble with this case, for I fully expected to receive intelligence in a few days, either from the husband or attending physician, that the lady had miscarried, but instead was summoned to visit her again, as the treatment had produced no effect.

At this visit I found the patient still more exhausted from loss of sleep and rest, and retained scarcely any food or drink, and it was evident that without relief she certainly could not long survive; so I advised her husband to convey her to the train (on a mattress), and thence to Birmingham, where I could see her often, and give the necessary attention.

On the following morning I called Drs. J. W. Sears and W. P. Taylor in consultation, and we found the patient in the following condition, viz.: Distressing nausea and vomiting, a feeble pulse (from one hundred and twenty to one hundred and forty beats per minute), a hot dry skin, a dry coated tongue, parched lips, and presenting the appearance very much of a patient in the fourth week of typhoid fever. Drs. Sears and Taylor agreed with me that abortion was certainly justifiable, and should be brought on as soon as possible; consequently I again passed the sound into the uterus, packed the vagina with a cotton tampon, and gave large doses of ergot hypodermically, but even this medication and local irritation proved insufficient to arouse the uterus to contraction.

As time was a great consideration in this case, and fearing the evils of delay, on the next day I passed a small sea-tangle tent well into the uterus, and tamponed the vagina as before, so as to hold the tent *in situ*, and let it remain fifteen hours; but this produced no other result than slight dilatation of the os uteri.

Seeing that unless relieved this lady could not live many days, as she had become so weak that she could not turn herself in bed, we resolved upon active interference to empty the uterus of its contents, and lessen the tension on the uterine fibers. In obedience to this resolution, I introduced a large sponge tent into the uterus beyond the os internum uteri, and secured it in place as before with a cotton tampon.

At the expiration of six hours I introduced a Sims's speculum, and after removing the cotton and sponge tent, which had done its work well and fully dilated the cervical canal, I hooked a uterine tenaculum into the anterior lip of the cervix, and slowly but steadily drew it down near the vulva, and within easy reach of my fingers. I then withdrew the speculum (the tenaculum remaining), and had the patient turned on her back, her hips drawn well over the edge of the bed, her legs flexed and thighs held at right angles with the body, so as to secure the greatest degree of relaxation possible to the perineum and abdominal muscles, and introducing two fingers into the cavity of the uterus removed a fetus (a miniature baby) at about the fourteenth week of utero-gestation. Then with my index finger I made the complete circuit of the uterine cavity, and removed the little placenta; and wishing to sustain all the strength the patient had, I injected about a pint of hot water into the uterus to secure a good contraction and prevent hemorrhage.

Dr. Sears kindly gave the patient a little chloroform during the operation, and she rallied well and experienced but little shock. In several hours I called and found the patient suffering considerably from after-pains; but after removing a small clot from the cervical canal, I washed out the vagina with tepid carbolized water, and gave fifteen minims of the fluid extract of hyoscyamus hypodermically (as she could not take morphia), which secured her a good night's rest—the only one that she had received for seven or eight weary weeks.

After the operation it was indeed wonderful what a transformation there was in this patient's condition; for she never became sick at the stomach nor vomited a single time, but immediately began to retain milk and absorb all that was given her. I used no other treatment save an antiseptic vaginal wash; and she steadily improved, her fever subsided, her tongue became moist and began to clean off, appetite returned, and at the end of two weeks was able to be carried home with her mother to Chattanooga, Tennessee.

Remarks.—In any case of abortion where the decidua has not been expelled, the obstetrician has not fully discharged his duty until he has by bold and prompt measures removed it by manual extraction. This operation does not require any great amount of technical skill, and its immediate results are in the highest degree satisfactory. It can be accomplished by placing the patient crosswise in bed, her hips near the edge, her legs flexed and thighs held at right angles to the body; and with the left hand over the symphysis pubis press the uterus well down into the cavity of the pelvis, and pass the index finger of the right hand through the cervix, and by making the complete circuit of the uterine cavity the decidua can be removed without much difficulty.

In many ordinary cases of abortion the placenta is left *in utero*, to be thrown off by nature as best she may; and doubtless the large number of helpless, broken-down women, with long histories of repeated hemorrhages, fetid discharges, and local inflammations—either a subinvolution, or uterine or cervical catarrh—who present themselves almost daily to their family physician, or finally seek relief of some specialist in the larger cities, are in as many instances due to bad management in abortion as in labor at full term.

I do not believe that any woman is safe in abortion, nor should the obstetrician leave his patient until the little placenta has been removed in the manner just detailed; for in my limited gynecological practice I have seen cases of serious uterine trouble caused by a small tuft of the placenta left *in utero* after an abortion, and which was relieved after its removal by Thomas's curette, combined with constitutional treatment. For the extraction of the placenta the index finger is preferable to the ovum forceps, for it is safer, simpler, and there is no danger of producing local injury to the endometrium.

In conclusion, the following summary of views are respectfully offered in connection with this case:

1. We could hardly conceive of a more unfavorable case for operative interference than the one just detailed, and the result tends to justify so bold a procedure in such cases.

2. If this lady had not have aborted she certainly would have died.

3. The vital powers were so completely overwhelmed by the constitutional disturbance of nausea and vomiting, that nature either refused or was unable to arouse sufficient uterine energy to expel its contents.

4. In all cases where nature fails to bring about abortion, and the patient's life is in jeopardy, if the obstetrician does not empty the uterus of its contents by a bold and prompt procedure, he has not given his patient the benefit of all the resources of his vast art.

I hereby return thanks to Drs. Taylor and Sears, for valuable counsel and assistance in the management of this case.

BIRMINGHAM, ALA.

HOW TO PREVENT MAMMARY ABSCESS.

BY S. S. BOYD.

In the September number of the American Practitioner, I find a very excellent paper, "A Simple Method of Preventing Mammary Abscess," copied from the Canada Medical and Surgical Journal.*

For years past, when in my practice a mammary abscess is threatened, I have always applied a bandage to the breast with the most satisfactory results, never failing to prevent suppuration if resorted to in time. Even after the breast has suppurated at one point, if the bandage is properly applied the extension of inflammation to other parts of the breast will be prevented; which was not the case when, under the old *régime*, I used all the poultices, plasters and liniments, which I and all the old women of the vicinity could suggest.

The bandage is applied as follows: First, take a roller of sufficient length to pass around the waist of the patient just below the breasts. Then take a piece of strong muslin about eight inches square; cut a circular hole in the center of it, large enough to pass over the breast tightly; sew one edge of this to an edge of the band. Now raise the breast and gently draw the eight inch piece over it, so that the breast will protrude through the circular opening. Fasten the bandage as tightly around the waist as can be comfortably borne. From each upper corner of the square piece fasten a band and pass them over the shoulders, and secure tightly to the bandage which passes around the waist.

We now have a foundation for the superstructure, which we build as follows: Take a soft roller, one and a half inches wide, and lifting the breast pass it around the breast two or three times at the base as tightly as can be tolerated by the patient. Then cut strips from the same roller about eight inches long, and fasten one end of one of the strips to the inner edge of the cloth through which the breast protrudes; fasten the other end of the strip to the opposite side of the ring, passing it over the breast but avoiding the nipple. Apply other strips in like manner until the breast, except the nipple, is completely covered; apply the strips as tightly as can be borne by the patient. It will astonish the uninitiated how much pressure an inflamed breast will bear when thus gradually applied. The same plan is resorted to when not called until suppuration is established, except that an opening in the bandaging is left at the point of exit of pus. When the bandages become loose, as they rapidly do, they should be tightened.

---

* *Vide* American Practitioner, p. 179, September, 1879.

Not claiming that the above plan of treating mammary abscess is as neat as that given by Dr. Shepherd, I do claim that the bandaging more thoroughly fills what I take to be the indications in such cases, namely, to more effectually cut off the excessive supply of blood that feeds the inflammation, which once established often destroys the function of the breast, and brings almost intolerable suffering to the patient. While I admit Dr. Shepherd's plan of treatment acts, as he says, by "exercising even pressure and giving support to it," yet I believe the facilities for renewing the pressure, as afforded by the foregoing suggestions, will be found essential to success in many cases.

Again, if we teach the student or young practitioner of medicine that by bandaging the breast we cure mammary abscess, he at once discovers that congestion and even inflammation can be overcome by pressure continuously applied; and he will not have to be taught that bandaging is "the sovereignest thing on earth" for indolent ulcer, a sprain, or synovitis, and most other forms of inflammation where a bandage can be used or pressure applied. In short, we teach a *principle* which is adapted to a wide range of diseases, and not a mere *fact* which only applies to a single case.

DUBLIN, IND.

FOREIGN CORRESPONDENCE—OUR LONDON LETTER.

LONDON, October 15, 1879.

MY DEAR YANDELL: The month comes round rather rapidly, I find; but we are told by good authority that as life progresses the time flies swifter, though I have some doubt as to whether this holds out into nonogenarian existence. The medical session has commenced, and at the different schools, or at least most of them, the opening addresses have been full of good advice as to study and the best use of their time for the new students. The entries have been very large this year. It is thought that this is due to the poor prospects in commerce and in agriculture, owing to the existing depression in both; and many young men, who would otherwise have gone to a trade or studied farming, have determined to take their chance in the ranks of medicine. The more necessity, then, for these remarks and advice.

An interesting discussion took place at the Cork meeting on the subject of Hemorrhage from the Genital Organs during Pregnancy and Parturition. It was opened by Dr. A. V. Macan, of Dublin. He commenced with the subject of menstruation during pregnancy: holding the view that this term is misapplied as to the bleedings which occur during pregnancy. He holds Bischoff's theory of the dependence of menstruation upon ovulation; a view not held by many rising authorities. He then discussed the subject of threatened abortion, when the life of the mother was in question. This involved a diagnosis as to whether the fetus were alive or not in many cases. If it were certain that the fetus was dead, then there is the simple uncomplicated question of the mother's life. But in some cases the mother would run some risk to give her child every possible chance of existence. Sometimes the ovum survives the most numerous and varied perils. Some authorities hold the view that the discharge of decolorized blood-clots was evidence of the death of the fetus; but recently he had met with a case where such symptom was present, and notwithstanding the fetal heart was heard a fortnight afterwards. He drew attention to the great improvements which had lately been made in this department by the use of Thomas's blunt wire curette, and the scoops of Simon, of Heidelberg, first introduced for the removal of cancer. The tedious and painful operation of dilating the cervix might often be avoided.

He then referred to the treatment of placenta previa. He stated there could never be unanimity of opinion on the subject till the knowledge was more general as to the actual changes in the cervix which are induced by pregnancy. The cervix is not taken up gradually into the body of the uterus in the later months of pregnancy, as has been supposed. The manner in which the cervix becomes obliterated is very different in the primipara and in the multipara. The placenta is never found attached to the cervix except in some rare cases when it leads to early abortion; and, therefore, it was incorrect to speak of the placenta being detached from the cervix as this becomes retracted. Moreover, instead of the interior of the cervix becoming smaller during the dilatation of the os, the fact was it became immensely distended in every direction. The placenta, when partially previa, was inserted into the lower zone of the body of the uterus. Such being the case he contended that Dr. Barnes's plan of separating the placenta from its attachments, as far as the fingers could reach, was hardly a right one. He then explained how rupture of the membranes was often followed by cessation of hemorrhage. Again, when the pain comes on, the circulation in the placenta is largely arrested; consequently ergot causes such tonic contraction, that the child may be asphyxiated. If the presentation were complete it was only necessary to detach the placenta on one or other side, to tear the membranes freely away from its edges, and then the case became one of partial placenta previa. Where this could not be done, it was necessary to plug until the time came when it could be carried out. As to the treatment of post partum hemorrhage, the newest points in treatment were the subcutaneous injection of ergot, and the use of hot water injections to throw the uterus into tetanic spasm. Mere warm water will not do this; it must be from 110° to 120° Fahrenheit, to be useful.

Dr. T. More Madden followed. He said that if during labor flooding was anticipated, he recommended the following measures: The rupture of the membranes in the first stage; the use of stimulating enemata of a strong infusion of ergot, or the hypodermic injection of ergotine, in the second stage; and a firm, unremitting manual pressure over the fundus uteri, from the time the child's head escaped from the vulva until the completion of the third stage, (which should never be hastened by traction on the cord), and the permanent contraction of the uterus was secured.

Then Dr. Walter, of the Manchester and Salford Lying-in Hospital, gave his experience of the hot water injection treatment of post partum hemorrhage. He said it had the advantage of being generally accessible, and not being disagreeable to the patient; but the contraction so induced was apt to be followed by subsequent relaxation of the uterus.

Dr. Lombe Atthill then criticised the different measures for the arrest of post partum hemorrhage. Ergot, he said, was most unreliable, and took time to act; so that even when injected subcutaneously its action was too long delayed to be useful. Cold was, perhaps, the most efficient of all agents, if used in the proper cases and at the right time, *i. e.*, when the patient was warm and reaction consequently followed. If its use was prolonged, or the patient were cold or exhausted, it was worse than useless. It was at this stage that hot water came in with advantage, not to supersede the use of cold. He thought Dr. Walter had used water at too high a temperature. Hot water would not replace the use of perchloride of iron, but it would at times render resort to it unnecessary. Perchloride of iron was in some cases absolutely demanded, and it was the most certain means of checking post partum hemorrhage.

Dr. Malins, of Birmingham, said two conditions benefited post partum hemorrhage, viz., sickness and fainting. To produce sickness artificially was an unsatisfactory method of treatment. As regards fainting, he had never known a patient die who had fainted; it alarmed the bystanders, but it was a wise provision of nature to arrest the bleeding by lessening the force of the circulation, and promoting the formation of clots in the uterine sinuses. His own plan in so-called "flooders," was always to insist upon some preliminary treatment of the general health; at the time of delivery never to take the hand off the uterus; to give a dose of ergot as soon as the head pressed on the perineum; afterwards to inject ergotine subcutaneously by a long needle into the buttock. If these measures failed, he introduced a sponge saturated with a solution of perchloride of iron, exerting pressure externally.

In the Psychological Section, an interesting paper was read "On the Prevention of Insanity," by Dr. Rabagliati, of Bradford, who spoke of the deplorable condition of Yorkshire, where one in every twenty-five or thirty was a pauper; and that in that county alone there were no less than two thousand nine hundred pauper lunatics in the county asylums, besides those in the workhouses. He proposed to take somewhat summary measures to meet such an appalling state of matters. He held that the rate-payers would be quite justified in insisting upon a forcible limitation of such a state of matters, and suggested that in the present ignorant mass of society marriage should be prohibited between persons who had ever been insane, and at any period of adult life been chargeable to the rates. His own opinion, based on a careful examination of facts—and Dr. Rabagliati is a man of no mean powers—was that insanity was only one group of a large class of closely allied diseases, such as scrofula, consumption, cancer, and perhaps syphilis. He thought that though there was no forcible interference as yet with the marriages of persons so affected, still there was already a very strong feeling against them. He thought much might be done by great attention to the physical development of children inheriting any taint. "He thought that with our over-peopled country, the number of the children of a family should average three, who could then be properly cared for; but were the present high death-rate to continue, then the average number should be five or six. He had heard it objected that such a course would only be followed by the prudent and thoughtful, who would then soon be swamped by the idle and the profligate still multiplying without check; but this argument overlooked the lessons of history."

From a somewhat extensive personal acquaintance with Yorkshire, I should feel inclined to say that in no county in England is there less likelihood of the Doctor's suggestions being entertained for a moment than in Yorkshire. That county is noted for the fertility of its women: in the agricultural districts families of seventeen and eighteen are quite common; while in the towns the families are smaller, but that is due to a high mortality, not to any decrease in the number of conceptions. Yorkshiremen, too, notoriously disregard any necessity for the marriage tie in their amours; holding a promise to marry, if any untoward result followed, as quite a sufficient guarantee to the compliant female. The necessity, too, for children to attend to certain parts of the machinery of mills, encourage him to test the fertility of his prospective spouse, before entering upon any matrimonial contract. So that, on the whole, Dr. Rabagliati has chosen a county where his views are least likely to meet with acceptance.

Dr. Mould, of Cheadle, near Manchester, said that people married from other and more emotional considerations, and not after careful inquiry and due consideration; "and he felt assured that it was most injudicious and inexpedient for scientific men to interfere with the relations betwixt the sexes, and especially the regulation of the number of children." He quite agreed with the view that the cultivation of healthy growth in children would do much to reduce the proportion of insanity.

Dr. Ashe, of Dundrum, thought that a better acquaintance among general practitioners with the causes and oncome of insanity would lead to improvement, "so that the earlier stages might be brought under a sound and rational system of treatment."

Dr. Bodington, of Kings-Winford, thought further education of the ordinary medical man very desirable; and held the forcing plan of teaching at present in vogue generally to be very injurious.

Dr. Ringrose Atkins, of Waterford, held that in consequence of the want of familiarity with insanity, the family medical attendant was disabled from any proper consideration of the intricate factors which worked in the production of the cerebro-mental disorder; while, on the other hand, the unthinking and often willful concealment of all important facts and information, on the part of the friends of insane persons, or persons becoming insane, added greatly to the difficulties to be encountered. He also condemned the forcing plan of present education.

From this discussion, it will be seen how strong is the tendency for a discussion to wander from its proper subject. The forcing education of children in higher schools has little to do with the pauper lunatics of Yorkshire; and so far as the discussion is concerned, the increase of lunacy in Yorkshire is likely to go on unaffected thereby. The large proportion of insanity in that county is due, in a great part, to the monotonous occupation of many persons who tend a spindle for instance; and who, when their work is over, take to any form of excitement which offers itself. With all due respect to Dr. Rabagliati, I do not think that any limitation of their families is likely to attract the attention or captivate the class of whom he specially spoke, further and beyond the general fact that such limitation is being largely considered by young wives under five and twenty. That the younger women of the present generation, in all classes of life, are entertaining the subject of limitation of their families, is a fact about which there can be no mistake; and that in this matter they are profoundly different trom the women even of the generation immediately preceding their own, is equally certain.

In relation to the subject of superfluous infants, permit me to conclude with a remarkable letter. Sometime ago, the mortality of an orphanage in Lambeth attracted much public attention, and the sanitary authority directed its medical officer—Mr. Bernard Holt—to report thereupon. He wrote:

"I have this day (January 18th) inspected the convent in Carlisle Place, more particularly respecting the infant mortality in that institution. Generally the premises are thoroughly clean, well ventilated and capacious, and the children above two years of age present an appearance of perfect health. They are evidently well cared for, and the elasticity of their spirits shows that they are very kindly treated. The nursery is a sufficiently large room for the number of occupants, and gives to each infant more than eight hundred cubic feet of air. The ventilation is good; but the room contains a stove too large for it, and I have therefore requested that if infants are continued to be received, they may be placed in the adjoining room. The infants receive every care from the Sisters, who are most careful to do everything to preserve life; but with all their care it will be quite impossible to reduce the mortality without each child is provided with a wet nurse, and even then the mortality will be great in consequence of the impoverished condition of the infants at the time of their admission. In my opinion, the whole question rests upon the point whether they should admit infants until they are in position to provide them with natural nutriment."

I know, Yandell, that you like and admire Holt, but can you tell me what he means?

Reviews.

Transactions of the Indiana State Medical Society for 1879. Twenty-Ninth Annual Session. Indianapolis, 1879.

The session began at Indianapolis, May 20, 1879, continued two days, was largely attended, transacted an unusual amount of disciplinary and administrative business, had excellent scientific papers with profitable discussions, and, taken altogether, appears to have been one of the most satisfactory reunions of the State Society members held for a number of years.

Dr. Benj. Newland was president, Dr. W. W. Woolen secretary, and Dr. E. S. Elder was chairman of the committee of arrangements; and it was to the intelligent attention the last-named gentleman gave to the duties of his position that the large size and happy success of the meeting was in a large measure due.

The state society is composed of members of county societies, and there are fifty-eight county societies, with an aggregate membership of nine hundred and twenty-seven. The finances of the state society are in good condition, and there is evidence of healthy and vigorous vitality generally in the organization.

Dr. J. R. Weist, of Wayne county, was elected president for the year ensuing; Dr. J. D. Gatch, of Dearborn county, vice president; Dr. G. V. Woolen, of Indianapolis, secretary; Dr. G. W. Burton, of Lawrence county, assistant secretary; Dr. G. W. H. Kemper, of Delaware county, treasurer; and Dr. F. J. Van Vorhis, of Indianapolis, librarian. The next meeting to be held in Indianapolis, beginning on the third Tuesday of May, 1880, at ten o'clock, A. M.

Eleven papers of a professional scientific character were read by their authors before the assembly. Of these one was chiefly on State Medicine, three on Practical Medicine, two on Obstetrics, four on Surgery, and one on Eye Surgery.

"The Relations of Legislation to Sanitary Protection," by Benj. Newland, M. D., of Bedford, Ind. President Newland opens his carefully written address with an allusion to the difference between the Aristotelian and the Baconian philosophies, and pays a tribute to the science of the present by saying that it takes a handful of sand and from it molds a lens that carries the human vision to myriads of otherwise unseen worlds in the starry depths; and from a pinch of similar sand fashions a microscopic objective that enables the scientist to peer down into nature, and find other new worlds as wonderful for their nearness and diminutiveness as are the former for their distance and their magnitude.

Tracing rapidly the development of the knowledge of the nature of true government, the author points out the conviction, now wide spread and spreading, that governments must have a care for the sanitary welfare of their people, both in the way of preventing disease and relieving the afflicted. He deplores the mischief done by proprietary medicines, and suggests how the law might interfere to lessen the evil; tells of the wrong inflicted on the ailing by incompetent doctors, and would have legal methods of measuring the qualifications of all who set up for physicians; and then comes to the important theme of preventive medicine, insisting, rightfully and judiciously, that the time is with us in which Indiana must take hold of the sanitary condition of the state and improve it, or be subject to the ignominy of doing less for the welfare of her people than other states near and far; and he wisely insists that this good work must be accomplished through the agency of a State Board of Health, created and clothed with appropriate and adequate power by the legislature. To this end President Newland invokes the untiring efforts of all good doctors in the state to agitate the subject as a means of educating the populace and influencing the legislators.

So much of the president's address as refers to practical hygiene and general sanitary affairs was referred to Drs. Hibberd, Hobbs and Waterman; and so much as refers to the suppression of irregular medicine by legislation, was referred to Drs. Sutton, Van Vorhis and Haughton, as committees respectively, to report to the next annual meeting of the society.

"Diseases Prevalent in the Early Settlement of Kokomo," by C. Richmond, M. D., Kokomo, Ind. Kokomo was settled in the spring of 1845, and in the autumn of the same year the settlers suffered severely from intermittent fever, followed in the winter by a *mal innominata*, affecting the alimentary mucous membrane from the lips to the anus, and sometimes reaching a part of the cutaneous surface. The symptoms given indicate a dry inflammation. In the spring of 1847 there were twenty-two cases of something—perhaps malignant erysipelas—of which all but two died in from six hours to two weeks.

"Rational Treatment of Dysentery," by Geo. L. Andrew, M. D., of Laporte, Ind. The practical, new and important feature of this paper is contained in the statement that a man aged eighteen years, laboring under a severe acute dysentery, was treated with ordinary remedies without relief from suffering or any improvement in the symptoms, and was then given two grams of fluid extract of ergot every three hours, with speedy relief from tormina, tenesmus and bloody discharges. It is a brief and good essay.

"Death from Chloroform," by W. W. Vinnedge, M. D., of Lafayette, Ind. A man about thirty years old, apparently in good and vigorous condition, in March last, had an eye enucleated under chloroform, and died just as the operation was completed. Examination after death revealed a fatty heart. When will doctors practically recognize the difference between chloroform and ether as anesthetics?

"Statistics of Placenta Previa," by Enoch W. King, M. D., of Galena, Ind. One hundred and thirteen cases of placenta previa were collected by the author from practitioners in Indiana; and these he first tabulates alphabetically by reporters' names, and then analyzes them as to all leading features presented, making a series of instructive tables, but not differing materially in results from other larger collections with which he compares them. Dr. King was requested, by a vote of the society, to continue his labors and report in 1880.

"Immediate Placental Delivery in Natural Labor," by E. S. Elder, M. D., of Indianapolis. Dr. Elder's theory is that delivery of the placenta should be as nearly coincident with the delivery of the child as may be, and this result he works for by massage of the fundus of the uterus through the abdominal walls as the child passes the outlet, endeavoring thereby to induce the expulsion of the secundines by the same pains that effect the delivery of the child. If this measure is not sufficient he immediately, before any attention to the newborn, gives manual assistance, per vaginam, insisting that where such manipulation is called for it should be done before the maternal organs have recovered from the shock caused by the passage of the child, for the dual reason that it is less perturbating to the mother and more facile for the accoucheur. Illustrating his theory by the detail of seven cases in practice, Dr. Elder claims to have established these advantages for his process:

1. Security against post partum hemorrhage.
2. Security against hour-glass contraction.
3. Security against uterine inertia.
4. Security against adherent and retained placenta.
5. Security against frequent severe protracted after-pains.
6. Security against septicemia and prolonged lochial discharge.
7. It saves valuable time.
8. It saves suffering and anxiety on the part of the mother.
9. It is better for the child, as the cord is not ligated until the placenta is delivered.
10. It is in accordance with the natural indications, and carrying out the physiological indications of the process of complete parturition.

This is an instructive essay.

"Excision of the Knee-Joint, with Cases," by Joseph Eastman, M. D., of Indianapolis. Three successful cases of this operation are narrated in the paper as a foundation for remarks, wherein the author claims that excision of the knee-joint is a less hazardous undertaking than amputation in the lower third of the thigh, and leaves a far more useful limb. For the highest success Dr. Eastman insists on the observance of certain features in the operation, which he points out in detail:

1. A transverse incision across the joint below the patella, the extremities carried well back for drainage.
2. Flaps of skin only.
3. Removal of patella.
4. After the bones are sawed off, clip away all synovial membrane, ligaments and thickened tissue, dissect out old sinuses, and preserve no periosteum except on healthy bones.
5. Do not wire the bones together.
6. Secure union by first intention, except at angles for drainage.
7. Consider antiseptic spray a *sine qua non.*

This paper is a credit to its author.

"Affections of the Gall Bladder tending to result in Cutaneous Biliary Fistula," by G. W. H. Kemper, M. D., Muncie. Concise histories of one case of his own and ten collated from various sources are given by the author, and then follow comments on the conditions attending or inducing these disorders, the pathological changes, the diagnosis and treatment. Full credit is given to the late Dr. Bobbs, of Indianapolis, for the first operation of cholecystotomy, though it appears he did not know what he was doing until he had done it.

"Perineal Section for Stricture of the Urethra," by J. A. Sutcliffe, M. D., Indianapolis. This is the report of a successful operation for the relief of a stricture of twenty years' standing, so obliterating the urethra that no urine passed it, nor could any kind of an instrument be carried into the bladder as a guide to the cutting. It was a difficult operation neatly performed.

"Case of Fracture of the Cervical Spine," by R. E. Haughton, M. D., of Indianapolis. A man in a well had a loaded bucket weighing fifty pounds fall twenty feet on to the back of his head and neck. Dr. H. attended him three weeks, when he was sent to the hospital, where he died at the end of three or four weeks more. The remainder of the paper is taken up with sundry professional reflections suggested by the man in the well, narrated in the author's usual lucid and felicitous style.

"Some Diseases of the Eye in which Operative Interference is Indispensable," by J. L. Thompson, M. D., Indianapolis. This is a bright and cheerful communication from a specialist to the general practitioner, full of kindly thoughts, practical suggestions, and classical witticisms. Some general practitioners do not like such papers from specialists, but the reviewer does, and he thanks Dr. Thompson for his practical and valuable suggestions, and the agreeable manner of their making.

The volume is well edited, and the publishing committee should have the thanks of the members of the state society for the careful and creditable manner in which they have executed their duties. J. F. H.

A Treatise on Hygiene and Public Health. Edited by ALBERT H. BUCK, M. D., American Editor of Ziemssen's Cyclopædia of the Practice of Medicine. New York: William Wood and Co. 1879.

Two portly volumes, aggregating between fourteen hundred and fifteen hundred pages, form this treatise. The conception of such a work was wise, and the result in every way admirable. The volumes are rich in practical information, and their general perusal by intelligent people, male and female, lay and professional, would do much to limit the utility of Ziemssen, or of any other work on the Practice of Medicine.

The contributors to the first volume are Drs. A. Brayton Ball, John S. Billings, Francis H. Brown, William H. Ford, Abraham Jacobi, D. F. Lincoln, James Tyson, and Arthur Van Harlingen, and Prof. William Ripley Nichols. Those who contribute to the second volume are Drs. Thomas B. Curtis, Bache McE. Emmett, Allan McLane Hamilton, S. S. Herrick, D. F. Lincoln, Frederic R. Sturgis, Roger S. Tracy, Thomas J. Turner, and S. Oakley Vander Poel, and Messrs. Rossiter W. Raymond, Stephen P. Sharples, Charles Smart, Henry C. Sheafer, and Elwyn Walker.

The introduction is by Dr. Billings, and is chiefly occupied with causes of disease and jurisprudence of hygiene. Then follows Part I, which includes infant hygiene, food and drink, drinking water and public water supplies, physical exercise, and the care of the person. Part II discusses soil and water, the atmosphere, and general principles of hospital construction. The above are the subjects considered in the first volume.

In the second volume, first part, the hygiene of occupation, that of camps, that of the naval and merchant marine, of coal mines and metal mines, are presented. The second part, under the head of Public Health, has the following subdivisions: Infant mortality, vital statistics, adulteration of food, public nuisances, quarantine, inland quarantine, small-pox and other contagious diseases, the hygiene of syphilis, disinfectants, village sanitary associations, and school hygiene.

We can not commend these volumes too highly, and we are sure that no physician who purchases and reads them will a moment regret the investment.

Elements of Chemistry. By ADOLPH WURTZ, Professor of Chemistry of the Faculty of Medicine, Paris. Translated from the fourth French edition, by WILLIAM H. GREENE, M. D., Philadelphia. With one hundred and thirty-two illustrations. Philadelphia: J. B. Lippincott and Co.

Beginning with some familiar things met with in every-day life, the author points out the nature of elementary substances, and by easy stages and agreeable methods carries the student to the foundation facts of chemistry; and then step by step, in a clear and lucid style and in an attractive way, leads him through the great fields of chemistry, combining and decomposing as they go, until the student has witnessed the beginning and the end of simples and compounds, and the manipulations of the plainest and most intricate and delicate chemical processes. The student who masters the contents of this book will be master of general elementary chemistry in its latest and highest developments. J. F. H.

A Guide to the Qualitative and Quantitative Analysis of the Urine. Designed for Physicians, Chemists and Pharmacists. By Dr. C. NEUBAUER and Dr. J. VOGEL. Translated from the seventh enlarged and revised German edition, by ELBRIDGE G. CUTLER, M. D., Pathologist at the Boston City Hospital. Revised by EDWARD S. WOOD, M. D., Professor of Chemistry in the Medical School of Harvard. New York: William Wood and Co. 1879. Royal octavo. 550 pp.

Since this translation was published Dr. Neubauer has died, but in his part of the book — chemical examination of the urine—he has done thorough work which will live on. The book is divided into two parts; the first chemical, the second (by Dr. Vogel) chiefly medical. In part first is considered, I. Physical and chemical properties of normal urine; II. Normal constituents of the urine—for instance, urea, its presence, preparation, microscopic and chemical properties, nitrate of urea, oxalate of urea, detection; III. Abnormal constituents of urine—for instance, albumen, its presence, etc.; IV. Urinary sediments; V. Accidental constituents. Then follow quantitative estimations—for example, of the amount of urine and the total solids in twenty-four hours, and lastly qualitative and quantitative analyses.

It seems as if Dr. Neubauer had put in this part of the book everything that is necessary, and made it very plain.

Part second, by Dr. Vogel, is probably the portion that the physician will consult the more frequently. It treats of, I. Changes in the color, appearance and odor of the urine;

II. Chemical reaction of the urine; III. Unusual (abnormal) constituents, as albumen, fibrin, blood in the urine, dissolved blood, fat, biliary pigments, biliary acids and sugar—their detection and significance; IV. Urinary sediments; and, lastly, quantitative changes in the urine, with an appendix relative to the examination of urinary calculi and other concretions.

The plates at the end of the volume, while not so numerous as in "The Microscope in Practical Medicine" by Beale, and other works devoted only to the microscopic appearance of the urine, are well engraved, and represent admirably what they purport to do.

Messrs. Wood and Co. have made an experiment in binding this book, in what we believe is cow's skin. It has the appearance of Russia binding, and is very durable, and ornamental to any library, general or medical. The book is printed on heavy paper, and an index closes the volume. A. M.

Transactions of the Pathological Society of Philadelphia. Vol. VIII. Edited by J. H. C. Simes, M. D., Lecturer on Histology in the University of Pennsylvania. Philadelphia: J. B. Lippincott and Co. 1879.

This volume embraces the transactions of the society from September, 1877, to July, 1878, and is fully up to the standard of its predecessors. The manner of classifying the matter is similar to the last volume, under the several heads of osseous system, digestive apparatus, vascular system, etc.

Among many interesting specimens presented to the society is one by Dr. O'Hara, of four inches of the rectum excised on account of intussusception caused by a villous tumor; also by Dr. Wardner a rare case of syphilitic disease of the pleura and lung.

Closing the book is a long and excellent article by Dr. James Tyson, on "the causal lesions of puerperal eclampsia," in which the conclusion is reached that *genuine* puerperal convulsions are the result of renal disease.

Clinic of the Month.

HEMORRHAGES IN PERTUSSIS.—M. Henri Roger communicated to the *Académie de Médecine*, *Archives Générales*, a clinical study upon hemorrhages occurring in whooping cough, and especially upon hemoptysis and pseudo-hemoptysis. The hemorrhages are due to the intense and multiple congestions that this affection causes, to alterations by an irritative process of the walls of the capillaries, and finally to an impoverishment of the blood resulting in a loss of its plasticity. These occur sometimes at the surface of a mucous membrane, and the blood flows out; sometimes in the subcutaneous or submucous connective tissue; sometimes at the surface of a wound or of an ulceration; more rarely in a visceral cavity or in a serous pouch, and it is exceptionally that the blood is infiltrated into a parenchymatous structure.

Epistaxis is the most frequent; generally slight, nevertheless it may become a serious accident by its abundance and repetition. Subconjunctival hemorrhage is not rare, and is produced by a violent shock of convulsive cough; without prognostic, it has a semeiotic value, for it may point to the disease which the pathognomonic cough soon confirms. Hemorrhages at the surface of the conjunctiva, as well as those of the external auditory canal, are infrequent. More rare still are subpleural hemorrhages, pulmonary apoplexy, blood effusion into the great cavity of the arachnoid, and especially effusions into parenchymatous structures.

The author gave more especial attention to buccal hemorrhages, the next most frequent to epistaxis, and brought out prominently the error into which so many practitioners have fallen—of taking for hemoptysis, or hematemesis, a simple hemorrhage from the mouth which is without any serious import.

Urinary Tuberculosis.—The following are the conclusions of Dr. O. Tapret, to a paper on this subject, in the *Archives Générales* for October:

1. Urinary tuberculosis is more frequent than would be judged from the small number of cases reported. It is rare in the female. It generally occurs between sixteen and forty years.

2. Tubercle may first affect the kidney, the bladder, the prostate and the urethra, and may remain entrenched there; it may be propagated, after a longer or shorter interval and a temporary arrest, to the genital organs or to the lung. Urinary phthisis is rarely associated at the outset with the other manifestations of the diathesis.

3. When the malady begins at the kidney, the commencement is insidious. But if the bladder, neck and trigone be first affected, most frequently certain signs indicate it—such as frequent and painful micturition, hematuria, pus in the urine, etc.

4. The symptoms of vesical tuberculosis are grouped in a variable but regular order, and although some of them may be absent, they form a characteristic morbid collection.

5. Its march, ordinarily chronic, may be hastened by rapid or slow invasion of the testicle or of the lung, rarely of the peritoneum and meninges. Notwithstanding periods of rest longer or shorter, it ends in consumption, and uremia may terminate life.

6. The diagnosis ought to rest upon a thorough knowledge of the value of each symptom. Direct exploration should not be employed except as a means of verification, and then as rarely as possible.

7. Tubercles of the kidney, of the bladder, of the prostate and of the urethra are, as those of the lung, of the meninges, of the peritoneum and of the testicles, presented in all stages of evolution.

8. Its treatment is that of tuberculosis in general. In some cases alterative injections may be tried. The most painful symptoms are lessened by morphia.

9. The occurrence of urinary tuberculosis may furnish light upon other affections, and give information as to the nature of certain morbid pulmonary or genital phenomena.

A Medical Reclamation from the Domain of Surgery. This is the title of a communication to the Boston Medical and Surgical Journal, by Dr. T. H. Buckler, in regard to the treatment of biliary calculi. In speaking of surgery invading the gall-bladder for the removal of calculi, he says, "if there is any one thing that does and must forever belong exclusively to the department of practical medicine, it is the ready means physicians have at command of always being able to dissolve, in the gall-bladder, cholesteric gall stones with as much certainty as if these same calculi were in a glass tumbler before them."

In 1867, Dr. B. advised the use of succinate of iron as a solvent for gall-stones and of cholesteric fat, whether in the coats of arteries or elsewhere. Chloroform, in doses of five to sixty drops, is also recommended as a solvent of biliary calculi. Dr. B. uses these remedies separately and combined. In two instances the patients—one a man and the other a woman—were able to take a teaspoonful of chloroform every six hours without experiencing the slightest ill effect. These large doses dissolved the calculi within the space of a single week. He further says:—"I have seen a number of cases of gall-stone, all of which, except one, were successfully treated with chloroform to dissolve the cholesterine existing in the gall-bladder at the time, and causing paroxysms of pain amounting to positive anguish, for the relief of which chloroform, the great anesthetic, is also the best agent. After existing calculi have been dissolved, then, to overcome the cholesteric diathesis and prevent the formation of other stones, the patients were all kept on teaspoonful doses, thrice daily, of the succinate of iron for a period of four or six months. The large majority of patients can not take by the stomach more than ten or fifteen drops of chloroform every four or six hours, in which cases it should be continued fifteen or twenty days."

NASO-PHARYNGEAL CATARRH.—In the October number of the Medical News and Library is a clinical lecture on the above subject by Dr. J. Solis Cohen, from which we extract some passages relative to thorough cleansing, as a *sine qua non* in the treatment. He says:

What are we to do with these cases? The first thing is to examine the parts affected, and note their condition. We look into the nose of the patient, and find that it is more or less filled with thickened mucus. This must be gotten rid of before the parts can be properly inspected. It is necessary, therefore, to wash the parts out. This may be done by means of the syringe, the spray apparatus, or the nasal douche.

The process is the same precisely as is requisite daily, or more frequently, to rid the parts of the secretions as they accumulate, so as to make the first break into the vicious circle of cause and effect reacting on each other. Break up this circle by keeping the parts as thoroughly clean as possible, and your patient will be more than half cured. Cleansing is the principal factor in the treatment, often efficient by itself to cure simple inflammatory cases. But it must be thorough. Relieve the diseased mucous membrane from the burden of these masses as they accumulate, and you give its blood a chance to regenerate fully formed ciliary epithelia which soon straightway begin to brush out the light layers of secretion themselves, and thus you gradually restore the normal condition. Even in cases of constitutional diathesis, this cleansing process is equally essential, though not so directly curative. Your constitutional remedies will be necessary to overcome the effects of the diathesis which interferes with the proper nutrition of the part; but the mechanical treatment is necessary to clear the way, and keep the way clear.

The fluid usually employed for cleansing purposes is tepid water at about blood heat, brought up to the specific gravity of the blood with some saline. We usually employ common table salt in the proportion of one drachm to the quart. In cases where the masses are very adherent, it is often better to use carbonate of sodium in the same proportion. Other ingredients used in similar manner are chloride of potassium and chloride of ammonium.

Stress has been laid on the necessity for as thorough removal of these masses of secretion, or excretion, as practicable. There is no other means of verifying thorough removal than frequent examination of the parts, anteriorly and posteriorly, by direct inspection, and with the aid of a mirror passed behind the palate. It will frequently happen that an hour may be consumed in getting entirely rid of these accumulations; and it is my own custom to persevere until they are removed, unless the patient shows signs of great fatigue, or the parts give indication of undue irritation.

Sometimes the forceps, hair-pencil, or a wad of absorbent cotton, can be used to detach matters within reach, and which resist expulsion by the douche or syringe.

The simplest method of cleansing, which is very efficient when the masses of secretion are not excessive or very adherent, is to let the patient dip his nose into a vessel of warm salt water, and sniff it up by insufflation into the pharynx, discharging it by the mouth. A similar plan, though less efficacious, is to draw the fluid up from the palm of the hand, repeating it with the head in different positions so as to favor contact with the various surfaces in succession.

Dr. Cohen also says a syringe may be used first on one side, then on the other, or a long curved syringe may be passed behind the palate and the fluid discharged through the nasal passages from behind forward. Another method of cleansing the nasal passages is to use what is known as Thudichum's nasal douche. The patient is to be cautioned against swallowing during the manipulation, lest the fluid be forced up the Eustachian tubes into the middle ear; where it might excite otitis media, as sometimes happens, not only in the use of the douche, but in every other method of cleansing the nasal passages—even the simplest of all, snuffing the fluid up from the palm of the hand. If movements of swallowing are avoided there will be but little likelihood of flooding the Eustachian tube; and if the fluid be warm there will be little danger of exciting inflammation of the middle ear, even if the Eustachian tube be flooded, as fluids are sometimes intentionally injected up the Eustachian tube in treating catarrhal affections of the middle ear. The first cleansing should be performed under the practitioner's supervision to be certain that it is done correctly. After that it can be left to the patient himself, or to an intelligent attendant. About a quart of the fluid should be injected daily, or twice a day, one-half through each nasal passage. . . . .

Getting rid of these accumulations you not only relieve the mucous membrane from the mechanical irritation they keep up, but you rid the air that is breathed of constant impregnation with the products of their decomposition, which impairs the general health, even in some cases to a condition of slow septic poisoning. Once the patient breathes uncontaminated air, his blood is invigorated, his appetite improves, his food is better assimilated; and thus his entire system reacts from depressing influences, and the diseased tissues take on a local healthy action which eventuates in recovery.

AMPUTATION BY ELASTIC LIGATURE OF THE INVERTED UTERUS.—M. Chauvel, *Annales de Gynécologie*, September, narrates a case of uterine inversion in a girl of eighteen, caused by violent traction upon the placenta. Eight months after the accident the patient came under his charge, and after repeated efforts at reduction by taxis and by elastic pressure had failed, he decided upon amputation by the elastic ligature. This ligature was simply a drainage tube, about four millimeters in diameter, encircling the pedicle in a groove made by the actual cautery: the ends of the ligature were firmly tied and further secured by a waxed thread. In eleven days the amputation was completed. The patient perfectly recovered.

Notes and Queries.

The London Practice of Midwifery.—Through the kindness of our friend, Dr. G. W. H. Kemper, a copy of this somewhat rare book has come into our possession. This particular volume is the American edition, taken from the sixth London edition, and published in 1826.

"The London Practice" contains much that is of value to the practitioner of to day, but much beside that would be utterly rejected; it also contains many curious scraps of information, a good deal of caustic criticism, and some at least questionable morality. Here is something in regard to Haller, which may be marked curious if true:

> "Haller had a peculiar method of procuring his information: he would take pains to discover the favorite pursuits of a student, and then desired to make extracts from his observations for his perusal; by this means he acquired much information with little comparative trouble: though this was sometimes productive of error; for, having extracts from magazines and even newspapers, a great deal of nonsense gained admission into Haller's library. In one instance, in particular, he had got an extract from a newspaper, relating to some uncommon diseases among seamen, which was taken from Robinson Crusoe; a history which never existed any where but in the brain of Daniel De Foe. It had been read and copied, no doubt, by a person of no very extensive reading, who believed all that he read."

In discussing the causes of labor, "The Practice" gives some sharp criticism of false theories, as witness the following:

> "It has been believed that the fetus finds sustenance in the womb for nine months, and then comes into the world to get something more palatable to eat. It has been supposed that nature has enabled the fetus to exist for nine months in the heat of the body, which is about ninety-six; but that at the expiration of that time it gets too hot. It has been supposed that at the end of nine months the meconium be-

> comes acrid, and the child comes into the world to have a stool. It has been said that the child rushes itself into life, because it wishes to breathe, finding itself weary of a fish's life sustained for nine months. The beauty of an hypothesis is to drive straight forward, turning neither to the one hand nor to the other, never stopping to compare facts. But we know that dead children are brought into the world by the same means and in the same manner as living. If we suppose the navel-string to have become twisted or pressed, or any cause to have been applied, by which the child is killed *in utero;* can we believe it likely that that child, being dead, will find itself hungry and come to eat? Will a dead child fancy itself too hot, and come kicking into the world to cool? Will any dead child feel itself seized with a looseness, and come scrambling into the world to have a stool? Or will a dead child find it wants to breathe, and so come into the world in hopes of recovering its life? Or is it probable that a dead child should show a degree of impatience at being in an uneasy posture? And another query may be urged, how is a child dead or alive, while yet in the womb, to know that it shall be born in the pantry or larder?"

The conduct of the practitioner is very fully considered. He is not to wear an apron, for "it looks ill to see a man stalking about dressed as if he was an executioner." If a stranger, he is to ingratiate himself with the patient after this manner:

> "With this view it is very easy to remark on her family, that Richard is the picture of his papa, and that little Miss Sally has the countenance of her mamma, observing that the girls are the handsomest, and how natural it is to expect that they should be so; that it rained yesterday, but has a fairer prospect to-day; that the wind was yesterday in the north, but to-day to the east; that the weather is very odd for the time of year, but there is reason to expect it will soon change for the better."

The garrulous women who crowd the lying-in room, freely telling all the dreadful cases of parturition, are to have their stories answered thus:

> "'Well, you certainly have been very industrious in collecting all these wonderful stories that ever were heard; I have made it my business, but never saw one half of what you relate;' hinting that he does not believe any thing about it."

When these guests are too annoying, meddling and mischievous, "The Practice" proposes this method of getting rid of them—a method the morality of which does not seem quite so obvious, as the reflection on woman's ability to keep a secret:

> "When such company is unavoidable, the best way to get rid of them is, to make a confidant of some one, telling her, as a profound secret, that the lady will not be delivered before to-morrow morning; this she will tell to another as a great secret, which will in a short time be known to all the company as one of the most inviolable secrets, and perhaps the patient herself will know of it; however, if the women, who in this case are of no comfort to the patient, and often a great interruption to the practitioner, are got rid of, that is sufficient."

The book gives the following injunctions to the obstetrician as to his manner, and with this extract we take leave of it for the present:

> "It is of infinite consequence that the practitioner should always be cheerful and unembarrassed: the mere appearance of his being tired, in a tedious labor, will produce a bad effect on the woman; he should appear cheerful, but not gay, the occasion does not warrant that. It is astonishing how great an advantage it is to have a pleasant smiling countenance: naturally it is very prizable; but when a man carries the picture of ill luck in his face, certainly he is to be pitied; it is then politic to make the best of a bad bargain, polish it up by a good humor and habit as well as he can, as Swift says in his Pastry-Cook, that the man
>
> —— 'chiefly show'd his art,
> Of much foul dough to make a savory tart.'"

YELLOW FEVER.—The following from Dr. McAllister, Port Gibson, Miss., is a supplement to his paper, which appeared in this journal for June, 1879.*

The most of the symptoms of yellow fever are common to other fevers; the eyes are sometimes red, and sometimes glassy. I believe the most constant symptom is the milk-white tongue. When the skin is hot and dry, some form of cold bath is always demanded; and when the symptoms are urgent in the early stages, I prefer the

---

*In Dr. McAllister's article in the June number, in abbreviating some sentences the ideas were changed. The sentence "morphine will control irritability," should read "when the vascular action is controlled morphine acts well," etc. Again, in speaking of the disease running on without any improvement in the symptoms, "there comes on a delusive condition sometimes, without fever." It should read "*called* without fever." In the Practitioner the term "second bleeding" is used; it should be "continuous bleeding."

heavy shower to fall from as great a height as possible on the head, shoulders and body. The patient can sit in an empty tub in a nude condition while the bath is being used, and during the time the body should be freely rubbed with wet cloths. When the pulse and temperature are modified, and the patient a little shivery, it should cease and the patient be well warmed in a bed; and if, after an hour, the symptoms should return, the same process can be repeated; or do that which sometimes acts as well, pour cold water freely on the head and back of the neck, and rub the body well with cloths wet with cold water. Under this treatment there is always marked and permanent improvement soon.

There will be one or more remissions in twenty-four hours, generally in the morning. This should be improved by the addition of a little more covering for a few hours. And if vascular action be controlled, morphia will act well; but if it be administered previous to this time, it will do harm. When the patient is doing well, let him be comfortable, and attend to the indications of nature.

Continual bleeding throughout the whole course of the disease, in a horizontal position, was first suggested to my mind by a desire to bleed without producing nervous irritability, and by observing the comparative comfort and ultimate recovery of cases in which hemorrhage from the gums commenced early in the disease, and continued throughout its whole course.

The patient should be put on a low bed or pallet. Devise means to prevent the bedclothes from being soiled. Open a vein or veins. Take off the bandage. Let the blood flow constantly day and night, unless there should be a decided change in the symptoms. The patient should retain the horizontal position as much as possible while the bleeding is going on. If he has occasion to rise, stop the bleeding until he assumes the horizontal posture; then let it flow. Syncope is not desirable; if there should be symptoms of it, the bleeding should cease until they pass off. If free perspiration should occur the bleeding should cease, to commence again if the symptoms returned. The bleeding will not interfere with any of the practice, unless there be improvement in the symptoms; if they should persist, and with a hot, dry skin, the bleeding should cease until the bath is used, when after an hour or two, if there is no change, it should be continued. There is no danger from bleeding in this way. Nature will accommodate herself to the loss of blood. I believe the patient could be left with safety, for a time at least.

Indeed if we were pressed with business, and attendants scarce, and the patient had to be neglected, I believe to administer to him the bath, a cathartic, and put the blood to flowing in the manner recommended above, would afford him the surest possible chance for life.

I always endeavor to make my patients as comfortable as possible throughout the whole course of the disease, believing it to be curative. Avoid nauseous drugs as much as possible, and loathsome practices. Let the patients have free ventilation. Don't oppress them with bedclothes, especially if they are hot or restless. Give them plenty of acidulated and effervescing drinks. Have the body rubbed freely at least once a day with dry cloths, and clean clothes put on, and also on the beds. Let some discreet person hold a few minutes' agreeable conversation with them occasionally. Have no idle gazers about. Present them with flowers and agreeable pictures. Change the position of the bed, and the scenery in the room, if convenient. Let some friend sit by them, and rub the head gently with the hand and ends of the fingers, if it be agreeable. It is in convalescence, and when the symptoms are healthful and the skin cool, that the greatest care is necessary to protect them from too much coolness. I believe that true convalescence is as favorable in yellow fever as in any other.

CHLORAL HYDRATE LINIMENT, SALVE, PLASTER AND SUPPOSITORIES.—In the *Memorabilien*, September 30, 1879, there are a number of useful receipts given for the employment of chloral hydrate. We give them below:

Linimentum Chlorali Hydrati.—Take of chloral hydrate ten grams; reduce to a fine powder, and add of oil of sweet almonds fifty grams. Digest by agitating until a solution has been effected.

Unguentum Chlorali Hydrati.—Take of chloral hydrate ten grams; reduce to a fine powder and dissolve in lard forty-five grams, and before melting add five grams of yellow wax; and after a solution is made pour into a jar and let it cool.

Emplastrum Chlorali Hydrati.—Take of chloral hydrate ten grams finely powdered; dissolve in yellow wax thirty grams, beef suet twenty grams; melt and stir the mass until it cools.

Suppositoria cum Chloralo Hydrato.—No. 1. Take of chloral hydrate five grams; reduce to a powder, and dissolve by digesting in yellow wax five grams, oil of cacao fifteen grams; melt and pour into molds, so that five suppositories may be made.

No. 2. Chloral hydrate ten grams, yellow wax seven and a half grams, oil of cacao twelve and a half grams; mix, and make as above for five suppositories.

Suppositoria Vaginalia cum Chloralo Hydrato.—Take chloral hydrate twenty grams; triturate and dissolve in yellow wax and beef suet, each twenty grams, lard thirty grams; melt, and make the cooling mass into five cylindrical suppositories.

MARGUERITE MALAURE.—Saviard, in his *Surgical Observations*, tells the story of this unfortunate woman. She had complete procidentia of the uterus, and the municipal authorities of Toulouse compelled her to wear man's clothes under penalty of bodily punishment. She came to Paris in 1693, and made some money exhibiting herself as an hermaphrodite. Finally, she was brought to Saviard at the *Hôtel Dieu*, who recognized the nature of the case, and notwithstanding the displacement had existed for many years, reduced it. Marguerite was thus restored to her sex, but a royal ordinance was requisite to restore her to her civil state.

THE AMERICAN PRACTITIONER.

DECEMBER, 1879.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

THE ELEMENTS OF SURGERY.

BY JOHN CHIENE, M. D., F. R. C. S. E.

Surgeon to the Edinburgh Royal Infirmary, etc., etc.

LECTURE V.

CONTENTS.—Problems—The Prevention of Putrefaction—An Interference with the Growth and Development of the Causes of Putrefaction—Axioms—Germs Living—All Living Things require Certain Conditions for their Growth—These Conditions can be Interfered with—Vitality is their Poison: Non-Vitality is their Life—Examples—An Egg: An Apple—The Urethra and Bladder—Putrefactive Cystitis—The Danger of Tying in a Catheter—An Aseptic Catheter—The different Methods of Interference with the Cultivation of the Bacterium—Conclusion.

Having tried to show you reasons why we must accept the germ theory of putrefaction, we have now to attempt a solution of this problem,—How can we best interfere with the growth and development in our wounds of those organisms which are the cause of putrefaction? Keep prominently in view the two factors in the process—the organism which is planted and the tissue in which it is planted; put aside, for the moment, the method of treatment associated with Lister's name, and let us consider the different methods of treating wounds, and see if we can explain the good results met with on the broad principle laid down by Pasteur, which, if true in one case, must be true in all. The method adopted in the solution is antiseptic surgery in the widest sense of the term; the result of a solution of the problem is aseptic surgery. Note, in the first place, three axioms:—(*a*) Germs are living; (*b*) All living things, including germs, require for their growth and development certain conditions; (*c*) These conditions can be interfered with.

(*a*). No one will deny that these particles (germs—bacterium) are living; they have a living principle; you see them growing, breeding, dying—all characteristics of life. Living things are divided into two great classes—animal and vegetable. The general impression is that these organisms are vegetable. Being noxious, they may be considered as weeds; and as a farmer does everything in his power to keep his land clear of weeds, so it is the surgeon's duty to prevent the weeds from appearing in his wounds.

(*b*). All living things require, for their growth and development, certain external conditions. I wish to separate growth and development from mere existence. A potato will exist on a dry stone floor: it will not die, but no growth will take place, as it requires certain conditions which do not exist in the stone floor; but plant it in a suitable soil and supply it with moisture, and the result will be growth and development—a number of potatoes. There is, then, a difference between mere existence and growth, due to a change in the external conditions of the organism.

What are the conditions necessary for the growth and development of a bacterium? Vitality in the soil in which they grow is their poison; non-vitality is their life. Imagine a line A. B. Let it represent the average amount of vitality in the human race; that is to say, the power which we have of resisting external influences. This power varies greatly in different individuals. One man can walk ten miles without fatigue; another can not walk one. There is a mean vitality in the human race which may be represented by the line A. B. There are certain people whose vitality is above that line, and others whose vitality is below it. Above the line you have the area which acts as the poison to the bacterium; below the line you have the area which is its life—an area in which it grows and develops. The further you go below the line the more suitable becomes the nidus, until at last you reach a point when all vitality has disappeared, when death takes place; here the nidus is most suitable—here the bacterium flourishes. John Hunter's definition of life centers itself in this property of living things:—"the power of resisting putrefaction"—the power of preventing the growth of the bacterium. If I lay a bacterium on the back of my healthy hand, it may exist, it does not grow; it has its analogue in the potato on the dry stone floor. If, however, I lay it in a wound or on an ulcerated surface, in which there is necessarily a lowering of the vitality, it there finds a suitable nidus—growth and development take place.

Let me illustrate the fact that vitality is their poison, by another example from John Hunter's work. In speaking of putrefaction, he illustrates the principle of life by the following curious and interesting fact: You are aware that the egg of the common fowl may be fecundated, or it may not; that is to say, the former will, if placed in proper condition, grow and develop into a chicken—the latter will not. Now, if you place two such eggs—one fecundated, the other not—in an oven at a certain temperature, you will find, after a time, that a chicken comes forth from the fecundated egg, and that the albumen left in the egg is quite free from putrefaction. Break the other egg, and it will be stinking. You observe that the living principle in the fecundated egg prevented the growth and development of the mischief, while the absence of the living principle in the non-fecundated egg rendered the contents a fit nidus for the growth of the mischief.

Take another example: An apple, when it is bruised, will putrefy at the rotten part. The bruising of the apple destroys or lowers its vitality, and the result is that the organism falling on that part finds a suitable soil for its growth—the bruised portion has lost the power of resisting external agencies.

The frugal housewife never stores fallen apples; they are at once converted into apple-tarts.

But let us take another example more closely connected with our bodies. I ask you now to think of a flask with a bend in the neck: you all possess it—the bladder and urethra. It may be compared to a glass flask with a long neck. There is this important difference, that in it the walls are living. In the bladder we have a putrescible fluid; this fluid is expelled three or four times in the twenty-four hours. At the opening of the urethra (at the mouth of the flask), the bacterium is present. Remember that the urethra is practically a capillary tube, the walls of which are separated by a layer of mucus: there is, however, plenty of room for the passage of these microscopic organisms. We have a most putrescible substance, at a comfortable temperature, for the growth of these organisms; and still as long as the walls of the urethra are healthy these organisms never pass up the urethra. This can be proved experimentally. Destroy with carbolic lotion the organisms at the opening of the urethra, and then make water into a glass flask which has been purified (with heat, let us say), then close the mouth of the flask, and the urine will not putrefy. Make water, without washing the urethral opening with carbolic lotion, into a purified flask; close the mouth of the flask, and in forty-eight hours the urine will be loaded with bacteria. This proves that the bacterium does not exist in the healthy urethra. It also proves that the bacterium exists at the opening of the urethra. Take a capillary glass tube, which has been purified by heat, and after it cools introduce into it sterile albumen; close one end, and inoculate the other end with some fluid containing bacteria. In a few hours the albumen will become turbid, and this turbidity will gradually extend along the tube; the bacteria will be found throughout the whole length of the tube. They march up this tube; they don't do so up the healthy urethra. Why? Because the urethral walls are living—vitality is the poison of bacteria; the glass walls are dead—non-vitality is the life of bacteria. Let us pursue this subject a little further.

There is a common inflammation of the urethra—a gonorrhea. A not uncommon result of gonorrhea is cystitis. There are two kinds of cystitis. One due to an impression which passes along the sensory nerves to the spinal cord, and is reflected to the bladder, and an inflammation of the bladder is the result. Another variety of cystitis is due to the passage of the organisms along the urethra into the bladder; an inoculation of the urine takes place, and a form of cystitis which may be termed putrefaction is the result: the urine is loaded with bacteria. The primary inflammation in the urethral walls lowers their vitality, and the mucus in the canal becomes at once a fit nidus for the growth of the organism. The urethral walls approach a condition analogous to the walls of the glass tube. Frequency of micturition in gonorrhea is a provision of nature to wash away the mischief, and prevent its passage upwards into the bladder. Hence the value of diluents of barley-water, etc. ; they act in the same way as a syringe in our wounds. And, in passing, I may say that the urethral syringe should always be fitted with a fine piece of india-rubber tubing, which should be passed up the urethra beyond the tender inflamed area, so that the fluid injected may reach the urethra at the proximal side of the mischief, and escape along the sides of the india-rubber tube, washing the walls of the urethra in its passage in the same direction as the urine flows from the bladder.

If a catheter is tied into the bladder, then some antiseptic precaution must be taken to prevent the organisms from multiplying in the layer of mucus between the urethral wall and the outside of the catheter. If the orifice of the urethra is not washed with carbolic lotion, and a piece of gauze or boracic lint tied round the penis at the opening of the urethra, it will be found that after the catheter has been in position for two or three days the urine in the bladder is putrid, the organisms have passed along the sides of the catheter to the bladder in the same way as they passed along the glass tube. It will be well to change the catheter every second day, to wash it with carbolic lotion, oil it with carbolic oil (one to thirty), and reintroduce it. We must also remember that the catheter mechanically causes irritation; and after it has been in the urethra for a time, the walls of the canal inflame and the mucus becomes a fit nidus for the cultivation of the bacteria, still further increasing the chances of putrefactive cystitis. In the female, in consequence of the short urethra, the chances of cystitis from bacterial inoculation is more likely to occur than the male. This is, I believe, the explanation of the fact that the female is more liable to cystitis than the male; on the other hand, it is to be remembered that the bladder in the female is more thoroughly emptied, and that the mischievous particles are more easily washed out.

Why, then, if the dirty catheter is so mischievous, do we not have more frequently putrefactive cystitis? Because, in the great majority of cases, the bladder is healthy, and the next act of micturition empties the bladder completely, and the bacteria are washed away with the urine. If, on the other hand, we introduce a catheter into a bladder which is unhealthy, in which the walls are inflamed, in which the mucous membrane is corrugated and thickened, then some of the mischief may stick amongst the rugæ or make its way into the softened mucous membrane, and may not be removed by the act of micturition, but remain attached to the walls and lie in wait ready to inoculate the urine as it passes from the ureters into the bladder.

I have heard Mr. Spence say that it is not a good thing frequently to sound a man with stone before lithotomy. In other words, the more frequently this is done the greater is the chance of inoculating the urine in a bladder the seat of a stone, and which is almost certainly an unhealthy bladder with inflamed walls, in consequence of the mechanical irritation of the stone. Suppose a man suffers from prostatic enlargement, then we have to deal with a bladder which is never thoroughly emptied; and if we introduce with a dirty catheter mischief into such a bladder, then we have always a well of urine behind the prostate which contains putrid urine, and if there is any abrasion on the bladder, the putrid matter passes into the general circulation and putrefactive product fever is the result. As long ago as 1869, Dr. John Wyllie pointed out to me the clinical fact that the first time you draw off the urine in a case of enlarged prostate the urine is clear, but in a few days the urine became thick and cloudy, with a copious sediment, and if this is examined with the microscope bacteria are found.

The practical outcome of what I have said is, that an impure catheter should never be introduced into the bladder. In the healthy bladder it *may* do no harm; in the inflamed bladder, or in a case of enlarged prostate, it will certainly be followed, sooner or later depending on the frequency of introduction, by putridity of the urine. The catheter should be washed in one to twenty carbolic lotion (its surface and specially the cavity of the instrument), and oiled with one to thirty carbolic oil, before introduction. It will be well here to mention that "surgical kidney" is due to the passage of these organisms along the ureter into the pelvis of the kidney; the primary inflammation in the bladder causes inflammation of the ureter walls and walls of the pelvis of the kidney, and renders the urine in these situations a fit nidus for the development of the bacteria.

We have, then, the glass tube with the dead walls, the urethral walls with inflamed walls, and the urethral walls in a state of health, illustrating the proposition with which I began—that vitality is the poison, and non-vitality the life, of these organisms.

(*c*). I have now to direct your attentien to the third axiom, that these conditions, which render easy the growth of bacteria, can be interfered with. I have now to speak of the various ways in which surgeons may interfere with the growth and development of these organisms in wounds, just as a farmer interferes with weeds on his farm. Good farming means no weeds, good surgery no organisms. The different methods of interference may be classed under the following heads:

(*A.*) By removing them before they have had time to do harm.

(*B*). By removing the soil in which they flourish.

(*C*). By increasing the vitality of the tissues.

(*D*). By lowering the temperature of the tissues.

(*E*). By dry dressings.

(*F*). By preventing their deposit in a wound after an operation.

(*G*). By rapidly changing the wound from an absorbing to a casting-off surface—preventing their entrance into the general circulation.

(*H*). By placing none in the wound at the time of the operation.

(*I*). By killing them.

(*A*). *By removing them before they have had time to do harm.* It is in this way that a syringe filled with simple water does good, simply washing away the mischief before it has had time to do harm. Just as a farmer roots up the young thistles before they have time to flower and spread by means of thistledown. Few surgeons now-a-days inject simple water; however much they cry out against "antiseptic surgery" (the word seems to act on some of the name as a red handkerchief does to a bull,)—they use some antiseptic in their lotions. The fluid does its work as efficiently as the simple water as a flushing agent, and at the same time the mischief in the water is destroyed by the antiseptic.

(*B*). *By removing the soil in which they flourish.* By the removal of the serous and other discharges, which are a fit nidus for the cultivation of the mischief. The syringe acts in this way by rapid removal periodically performed. The drainage tube, the catgut or horse-hair drain, do the work gradually, and allow of no accumulation. Dr. Thomas Keith at one time sucked up the discharges by means of a syringe introduced into a glass tube, which he introduced into the cavity of the pelvis at the time of the operation for ovariotomy. Some attain the same object by leaving the wound open, so that no discharge can accumulate. Other surgeons leave one part of the wound open. Others put on no dressing which is apt to retain the discharge.

(*C*). *By increasing the vitality of the tissues.* By bringing your patient into as good a state of health as possible before the operation; if the tissues are healthy, then the mischief can not flourish—vitality is their poison. The local vitality can be raised by preventing tension by means of the drainage tube, or by any other of those means detailed under the second head. Tension means inflammation; when a tissue inflames its vitality is lowered, as I have already tried to show in relation to the urethral walls when attacked by gonorrhea. If the wound can be kept at rest, then inflammation is prevented. We owe this attack on unrest to the labors of the late Mr. Callender, of St. Bartholomew's Hospital. He carefully supported his stumps on splints and pillows, preventing inflammation. It may be here well to note an attempt which is now being made to render the body of the patient antiseptic before operation, by the administration of carbolates. If this can be managed *without poisoning our patients*, then we will have a most efficient means of preventing putrefaction in our wounds. As yet nothing definite can be said to have been obtained.

(*D*). *By lowering the temperature of the tissues.* This can be done by ice-bags or by an evaporating lotion. Keep the part cool, and we prevent inflammation; we at the same time render the tissues an unfit nidus for the growth of these organisms. In cold weather meat does not "go wrong."

(*E*). *By dry dressings.* At one time a very favorite way was the application of dry lint. Moisture is one of the great predisposing causes. The South Americans cut their meat into thin strips, and hang it in the sun to dry, experience teaching them that meat, when dry, will keep for an indefinite period.

It is often asked, how is it that union by the first intention did occur in wounds before antiseptics were ever heard of, if this mischief is so omnipresent? My answer is, that it was by the various means alluded to under the above heads. No special antiseptic was used; the tissues were at a high pressure rate of vitality—the mischief could do no harm. A germ in the wound formed no nidus for its growth; it lay like a potato on a stone floor, not dead but without those external conditions which it required for its growth and development. The healthy tissues prevented its growth in the same way as the walls of the healthy urethra prevent the mucus in the canal from putrefying.

(*F*). *By preventing their deposit in a wound after an operation*, by intercepting them, by screening the wound, just as you keep rabbits out of a garden by putting wire netting along the fence. In Paris you will see this done by cotton-wool. At the meeting of the British Medical Association in 1876, a glass box was shown in which the stump was placed after an amputation.

(*G*). *By rapidly changing the wound from an absorbing to a casting-off surface.* Mr. Savory, in his eloquent address on surgery, delivered before the British Medical Association this year, advocates a well made poultice. How does this act? By the heat engendered in the part the blood vessels dilate, active tissue growth takes place, granulations speedily form, and the walls of the wound cavity are changed from an absorbing surface to a casting-off surface. In other words, the wounded surface is sealed, and the organisms which exist in quantity on the wound surface find no entrance into the general circulation, and do no harm; they are practically outside the body. The poultice, from this point of view, acts as an antiseptic agent, preventing one of the dangers of putrefaction, closing the wound in the most speedy manner.

(*H*). *By placing none in the wound at the time of the operation.* The hands of the operator and instrument are purified with some antiseptic; the sponges are washed in an antiseptic lotion.

(*I*). *By killing them.* This may be done in various ways:

First. You may kill them in the air of the room in which the operation is performed, by means of disinfectants, chloride of lime, Condy's fluid, carbolic or sulphurous acids. These various substances, being volatile and poisonous, may be placed in the room; and it is possible to understand that you can prevent the living organisms from reaching the wound. I can easily understand that in a hospital ward in which everything is soaked in carbolic lotion—basins of lotion, masses of antiseptic gauze, and other carbolized materials lying about—the atmosphere might be rendered a deadly mischief to the poison. In medicine disinfectants are used with the greatest advantage, because, in a case of scarlet fever for instance, the poison comes *from* the patient, and we destroy it when it leaves the patient, and prevent those around him from harm. Such means are useful in a putrid wound; in this case also the poison comes *from* the patient, and we prevent the poison from reaching other patients by surrounding the putrid wound with some antiseptic. It is, however, a different thing when we make a wound. With unbroken skin to deal with, our business is to prevent the mischief from getting at the wound. Disinfectants are not sufficiently local for the majority of surgical patients. I may illustrate the distinction between the case of a patient suffering from typhus or scarlet fever, and an operation say for the excision of a tumor, by the following: You see fences round woods to prevent hares and rabbits from getting out—to prevent them from reaching the crops around the wood. This is medicine. You see fences round gardens to prevent the rabbits from getting in. This is what we aim at in surgery.

Second. You may kill the organisms after they get in, by the injection of some antiseptic lotion, as, for example, the "hyperdistention" method of Callender acts in this way. We must adopt this method when we are called to a wound the result of an accident. We can not help ourselves. The mischief has found an entrance, and it must be destroyed. Therefore, in a case of compound fracture we inject carbolic acid lotion into every nook and cranny, hoping to destroy the mischief. Of this we never can be sure; some particle may escape, and if left living, and it find a suitable nidus, it will certainly grow and develop and the wound will putrefy. Moreover, we do this at a certain disadvantage, because all antiseptics are irritants, and the tissues are to a certain extent injured; and if we fail in destroying all the mischief, then harm instead of good will follow. Therefore, when we inject a wound cavity, we must be thorough; half measures are worse than useless; the carbolic lotion acts as an irritant—the tissues are injured; and after the carbolic lotion which has been injected loses its antiseptic properties, the irritated tissues form a suitable nidus for the growth of the mischief which has escaped the poison.

Third. You may kill the mischief before it gets in. By performing the operation in an atmosphere which is poisonous. It is in this way the spray acts. We operate in a vapor of poison, so that any particle in the air in the immediate vicinity of the wound is destroyed, and when it reaches the wound it is dead and can do no harm.

I have now directed your attention to the various ways in which you may interfere with the growth and development of these organisms, which I have tried to show are the cause of putrefaction. If I have been understood, it will be evident that we may combine these different methods with advantage, taking as far as possible the good out of each; avoiding, in so doing, the adoption of any method which is spoken of as "modified antiseptic," because we must be thorough or we will be departing from the great principle which Lister has adopted as the basis of his work. We drain our wounds thoroughly, in order to prevent tension. We keep them at rest, to prevent inflammation. We perform our operation under an efficient cloud of antiseptic spray, which is an active poison to the mischief. During the operation the surface of the wound is bathed by the antiseptic. No germs are introduced on the hands of the operator; he washes his hands in an antiseptic lotion; the instruments are purified in the same lotion. The drain is introduced, the wound stitched, and the dressing of some antiseptic material applied. The gauze dressing is so made that the antiseptic is constantly being given off at the temperature of the body. It is practically a continuance of the spray in the form of vapor, instead of a cloud of spray. When the discharges from the wound reach the edge of the dressing, then a new supply of the gauze must be applied. This is done under the spray. As the discharge becomes less and less, the dressing of the wound is less frequently required until the wound is healed. No carbolic acid should reach the cavity of the wound after the operation; it is not required; there is nothing mischievous in the wound; it would do harm, acting as an irritant.

I have now finished what I have to say on this subject. I have striven to show that all the best surgery of our day is more or less antiseptic; but besides this it is of the utmost importance that you should recognize the principles of the movement which is identified with Mr. Lister's name, because if you do recognize these principles you will see the necessity of putting up with no half measures. I have heard much of "modified antiseptics." An English radical nobleman once asked his opponents, who were pleading for moderate reform, what they thought of moderate chastity; and in this light I would view this question. There is no point at which we can stop on the line beginning with simple cleanliness and fresh air, and ending with all the contrivances which a trained scientific ingenuity can suggest, for the prevention of putrefaction. Prevent putrefaction, and you prevent putrefactive irritation in wounds; but what is of infinitely more importance, you prevent the chance of the absorption of the products of putrefaction; you prevent that fever which is so deadly which I have called putrefactive product fever, and which has received various names—blood poisoning, septic poisoning, pyemia, septicemia. It matters little what it is called, if you but understand what it is and how to prevent it.

As a last word, I would not have you accept these doctrines without due inquiry and searching examination; but if you do accept them, you must be careful how you change your mind merely according to the results of your own practice. The foundations of the system are laid broad and deep on great principles—principles which I have tried to show have been for long followed empirically and in ignorance, until Lister grasped the idea and demonstrated the principle. No single individual has a right to throw it aside as worthless on the strength of the results of his own practice.

I have now, so to speak, prepared the way for the next lecture on the Practice of Antiseptic Surgery, which has been written by my late house surgeon and friend, Mr. Francis Caird. I have asked him to write this lecture, as he has given much attention to the teaching of the subject to my students in the Practical Class, which forms an important part of the course of systematic Lectures on Surgery, delivered by me to my class in the Edinburgh school of medicine.

NATURE AND SOURCE OF THE YELLOW FEVER EPIDEMIC AT LOUISVILLE, KY., IN 1878.

BY J. W. HOLLAND, M. D.

Professor of Therapeutics, Medical Chemistry, and Diseases of the Nervous System, in the University of Louisville.

Prior to the fall of 1878, no record had been made of any case of yellow fever originating in this region. When it did appear, a doubt naturally arose as to its identity. The following tabular statement (pages 356 and 357) of the significant symptoms of twelve cases, will enable any one to draw his own inferences.

In an inquiry into the cause of an epidemic, the relation held by the sick in common, and the topography of the district, are of first importance. The adjoined map has been compiled from official sources, and carefully corrected by personal inspection. The figures on the map are explained by reference to the list of cases on page 358. In the fatal neighborhood, general opinion counts about fifty names; but I have not relied upon street report. Some fatal cases occurring at the same time in the infected district are not set down, because of the difficulty in gathering reliable data: some mild ones are omitted because the diagnosis was considered doubtful. In the list on page 358, they have been grouped according to an important common relation, the meaning of which is obvious.

But one case is not included — that of Mudd — who was attacked on the 17th of September, and died four days later. He resided two blocks away from the infected district, on Fourteenth street, between Maple and Broadway. There was no history of exposure to the immediate range of the infected district.

Like hundreds of other citizens, who were not seized, he had come in contact with fugitives from Memphis. When it is discovered that the railroad track and several sidings are laid in the street before his door, one feels a strong inclination to include his and all the cases under a wider uniform relation, namely, that at night, or in the early morning, they were in the vicinity of the track and sidings, on which freight from the pestilential cities of the south was slowly borne.

The theories framed to explain this outbreak are three in number — first, *by direct contagion;* second, *by specific local miasm;* third, *by an imported factor plus a miasm.*

The theory of direct contagion must be considered in the highest degree improbable. For many years, with absolute impunity to her own citizens, Louisville has been a place of refuge for the people fleeing from the yellow fever in the south. In 1873, Memphis fugitives and their baggage were received without hindrance, entertained without fear, and those who fell sick of the fever while here were treated in every part of the city, and not a solitary indigenous case was reported.

In 1878, there was a more widespread exposure of the same kind. By public invitation thousands of refugees came; imported cases were treated in all parts of the city without isolation; physicians handled for hours at a time the black vomit, urine and pathological remains of the sick. At the Yellow Fever Hospital, physicians and nurses slept in the same building with eighty-nine patients, sick, dying or dead. All persons thus exposed were presumably susceptible, yet the only residents of Louisville who were seized were among those not thrown with the sick and dead, above mentioned. The chances are infinity to one against communication by direct contagion.

It is established that there was a limited locality, exposure to the night air of which, produced yellow fever. Of the many hundreds of persons whose business carried them at the time of the epidemic into this very busy locality, *during the day only*, all were exempt.

This is a feature characteristic of diseases of telluric origin, and may be urged in support of the theory of a *specific local miasm.* Though but few quarters of the city were exempt from paroxysmal fevers, the hot summer of 1878 was not considered a bad year in this respect. The mean temperature for July was 82°, for August 78°, and for September 69°. In 1879, the summer mean was at its usual level, in July 81°, in August 74°, and in September 64°. Dr. E. O. Brown, City Physician, reports that the streets and alleys in that locality "were in much better sanitary condition than were a hundred other localities." City Engineer Scowden found nothing in the district peculiarly insanitary. A survey, including analysis of the water supply, enables me to vouch that, though the hygienic conditions might be bettered, yet they were not exceptionally bad. If close survey finds nothing specific in the local sanitation, the theory of a *local specific miasm* can not be considered sufficient. The fact that the city area, covering about ten square miles, has many other spots as crowded, as filthy, and as malarious, would lead us to look for some other factor than the miasmatic.

The great body of the profession will conclude that the vicinity of the grounds of the Louisville and Nashville and Great Southern Railways, is the significant relation sought. A glance at the map and list of cases shows that two persons, living far apart, had in common this disease, and night employment in the freight depôt of this company; the other cases were brought near its freight at night, or were associated with the infected district. This district, the nearest block to the depôts, contains many small and crowded tenements, each of which has its own cess-pit. The first seizure took place September 12, in the person of E. B. Murray, who was night clerk in the office indicated by three stars. He occasionally visited the passenger depôt at the arrival of the midnight train. It is not possible to say whether he contracted the disease near that depôt or at his office; but owing to the direction taken by the disease, I am inclined to regard the corner of Eleventh and Maple as being near the focus of the infection.

Four days later two persons were stricken at 1 and 2, corner of New Alley and Maple, and then there followed the others in the order given on page 358. The wide spaces between consecutive cases can be explained by the depopulation which resulted when the nature of the disease was made known. For instance, No. 5 was the only house on the south side of Broadway which was not deserted, and on the north side all the families but three vacated the premises. Were it not for this speedy departure the mortality, judged by what befell those who remained, would have been doubled. It will be observed that the outbreak first appeared near the corner of Eleventh and Maple, and spread north and west as far as No. 17; the last case was taken sick two days before the first hard frost.

The theory of *an imported factor plus a local miasm* is the most probable one, as it is in harmony with all the facts. It recognizes that the locality and not persons is the source of infection. It takes note of the absence of peculiarly insanitary surroundings. It accounts for the proximity of the outbreak to the northern terminus of a trunk line which conveyed material of all kinds from infected towns. It helps to explain why in 1878, and never before, did the disease get a foothold here: because never before had such free personal and commercial intercourse been held by Louisville with so many pestilential centers. If one can accept that the steamboat "Porter" could carry the disease from New Orleans to Gallipolis, it is easy to believe that one or more of the hundreds of cars loaded at Memphis, or Grenada, or Holly Springs, shut close and subjected to no process of disinfection, not even aired till Louisville was reached, might in that way import "sections of the infected atmosphere." Once let loose, the specific poison, before being diluted and dissipated, would find its needed auxiliaries engendered by the heat, moisture and fecal accumulations of the very square where the outbreak occurred.

CLINICAL HISTORY OF TWELVE CASES.

Name of Patient and Physician.	Age.	Color.	Sex.	Residence.	Date of Seizure.	Initial Symptoms.	General Symptoms.
William Shaw Dr. G. H. Cox	14	W.	M.	Infected district.	Sept. 16	Chill, headache and backache.	Stomach irritable; epigastrium tender; eyes congested; expression anxious; tongue coated with red edges; odor characteristic; fever continued; yellow after death.
—— Williams Dr. Cox	12	B.	M.	Infected district.	Sept. 16	Chill and headache.	Stomach irritable; epigastrium tender; eyes congested; expression anxious: odor characteristic; yellow several days before death; fever continued.
—— Mudd Dr. Cox	48	W.	M.	14th bet. Broadway and Maple.	Sept. 20	Chill, headache and backache.	Stomach irritable; epigastrium tender; eyes congested; expression anxious; tongue coated with red edges; skin yellow; fever continued; pulse slow.
Sebas. Jonas Dr. Cox	27	W.	M.	Infected district.	Sept. 23	Chill and backache.	Stomach irritable; epigastrium tender; eyes congested; expression dull; odor characteristic; skin yellow; fever continued; pulse slow.
A. Voss Dr. Cox	30	W.	F.	Infected district.	Oct. 4	Chill, and intense headache and backache.	Stomach irritable; epigastrium tender; eyes congested; expression anxious; tongue coated; odor characteristic; skin yellow; fever continued.
E. Voss Dr. Cox	2	W.	M.	Infected district.	Oct. 5	Too young for subjective symptoms.	Stomach irritable; epigastrium tender; tongue coated with red edges and enlarged papillæ; expression anxious; fever contin'd.
H. Garbis Dr. Cox	30	W.	M.	Infected district.	Oct. 6	Chill, headache and backache.	Stomach irritable; epigastrium tender; eyes congested; expression anxious; tongue coated; odor characteristic; skin yellow; fever continued.
—— Young Dr. Cox	26	W.	F.	Infected district.	Oct. 19	Chill and severe headache and backache.	Stomach irritable; expression anxious; eyes congested; tongue coated; skin yellow: odor characteristic; fever variable.
—— Chapman Dr. S. Manly	60	W.	M.	18th and Magazine.	Sept 16	Chill, headache, backache and cramps.	Stomach tender; tongue coated with red edges; skin lemon yellow after death; no odor; pulse 96 per minute; fever generally 102°.
—— Murray Dr. P. B. Scott	30	W.	M.	14th and Chestnut.	Sept. 12	Vomiting of biliary matter.	Stomach irritable; eyes congested; skin yellow; the pulse ranged from 78 to 100 per minute until collapse; the temperature ranged from 101° to 103°.
— Fitzpatrick Dr. J E Crowe	45	W.	M.	10th and Dumesnil.	Oct 18	Chill, violent headache, pains in limbs.	Stomach very irritable; eyes congested; skin slightly yellow; temperature ranged from 98½° to 100°; pulse 60 to 84; no odor.
R. Moore Dr. C. Blackburn	25	W.	M.	10th bet. Walnut and Grayson.	Sept. 24	Chill, followed by fever.	Stomach irritable; eyes congested; skin yellow; fever continued, but variable.

YELLOW FEVER EPIDEMIC AT LOUISVILLE, KY, 1878.

Temperature of first Paroxysm.	Black Vomit or other Hemorrhage.	Apyrexia.	Urinary Symptoms.	Cinchonised.	Date of Death or Recovery.	Symptoms preceding Death.	Analysis of Urine made by Dr. J. W. Holland.
105°	Copious hemorrhage from stomach, nose and bowels	Sept. 21	Urine suppressed from night of Sept. 19; drew 1 fl. oz. by catheter on 20th.	Yes	Died Sept. 22.	Delirium.	Acid: lemon yellow; one-half albuminous; bile pigment present; renal and vesical desquamation.
103°	Black vomit and epistaxis.	Sept. 22	Scanty urine.	Yes	Died Sept. 22.	Delirium and Coma.	Acid; deep yellow; three-fourths albuminous; bile present; renal and vesical desquamation.
104°	Black vomit copious hemorrhage from nose and bowels	None.	Suppression of urine on second night; catheterized.	Yes	Died Sept. 22.	Delirium ending in coma.	Acid; olive green from bile; one-eighth albuminous; renal and vesical desquamation.
No record.	Hemorrhage from stomach and bowels	No record.	No record.	Yes	Died Oct. 1 at Yel. Fev. Hospital.	No record.	Acid; red yellow; bile pigment present; turbid; albuminous; renal and vesical desquamation.
101½°	Black vomit.	Oct. 8.	Urine scanty.	No	Died Oct. 9.	Delirium ending in stupor.	Acid; bright yellow; bile; one third albuminous; renal and vesical desquamation.
102°	Black vomit.	None.	Urine scanty.	No	Died Oct. 9.	Convulsions.	Acid; pale yellow; trace of albumen; renal and vesical desquamation.
104°	Black vomit.	Oct 10	Urine about normal in amount.	Yes	Died Oct. 10	Delirium.	Acid; color red yellow; bile pigment; one-third albuminous; renal and vesica desquamation.
102½°	Black vomit.	None.	Urine suppressed; catheter used.	Yes	Died Oct. 23	Delirium, Convulsions and Coma.	Acid; lemon yellow; one-half albuminous; a trace of bile; renal and vesical desquamation.
Unknown 103° just before death.	Black vomit.	None.	Urine scanty; catheter used.	Yes	Died Sept. 20	Coma.	Acid; dark yellow; bile pigment; one third albuminous; renal and vesical desquamation.
101°	Black vomit.	None.	Urine scanty; suppressed during last 24 hours.	Yes	Died Sept. 17.	No coma.	Acid; turbid yellow; one-sixth albuminous; desquamation from bladder and kidneys.
No record.	Hemorrhage from gums for a week.	…………	Urine diminished.	Yes	Recovered.	……………	Acid; red brown; one-fourth albuminous; bile present; amorphous urates and desquamation of bladder and kidneys.
No record.	Black vomit.	…………	Urine suppressed, catheter used.	Yes	Died Sept. 30.	Coma.	Dr. Kastenbine found albumen and granular tube-casts.

Group of Cases Living in the Infected District.

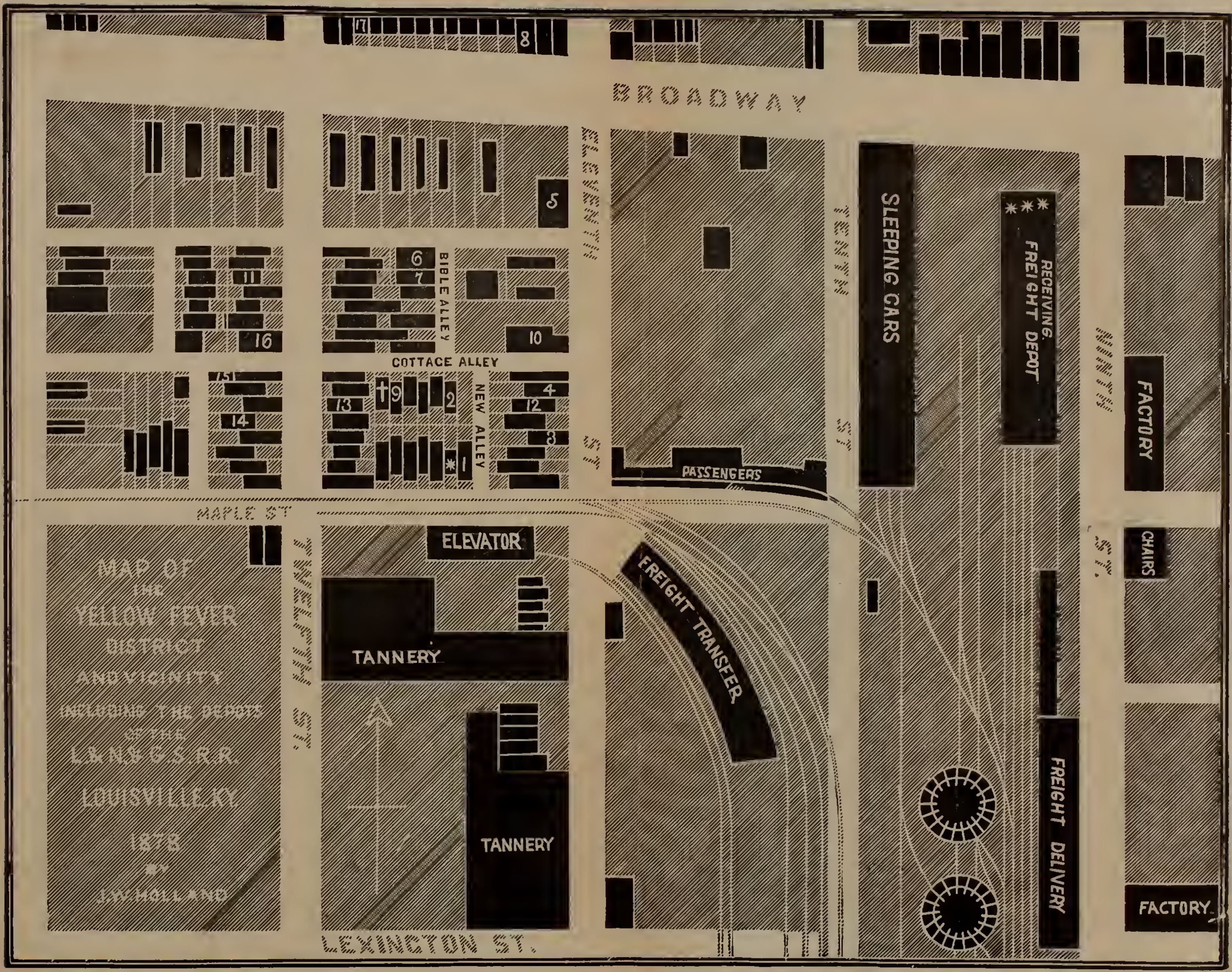
Residence. No. on Map.	Name.	Date of Seizure	Result.
1	William Shaw	September 16	Died.
1	John Shaw	Unknown	Died
*	Davy Croghan	Unknown	Died.
2	Cornelius Williams	September 16	Died.
2	Infant Merriman	September 16	Died.
3	Dan. McGlinn	September 17	Recovered.
4	Mary Lupe	September 20	Died.
5	Sebastian Jonas	September 23	Died
6	Mollie Truesdale	September 27	Recovered.
7	Charles Plunkett	September 27	Recovered.
7	—— Plunkett	September 28	Recovered.
8	Mary Ryan	September 30	Died.
8	Mary Lowrie	September 30	Died.
9	Maggie Shanahan	October 3	Died.
9	Mrs. Foley	Fled to Lexington, Ky.	Died.
10	Anna Voss	October 3	Died.
3	Mrs. Hanlon	October 5	Died.
10	Ernest Voss	October 5	Died.
10	Henry Garbis	October 6	Died.
3	John McGlinn	October 10	Died.
11	—— McCormick	October 12	Recovered.
11	—— McCormick	October 12	Recovered.
11	—— McCormick	October 12	Recovered.
12	Child Gary	October 12	Died.
12	—— Gary	October 13	Recovered.
5	J. T. Young	October 13	Died.
13	Mrs. R. White	October 14	Died.
14	John B. King	October 14	Died.
3	Mrs. McGlinn	October 14	Died.
15	Mike Casey	October 14	Died.
4	—— Gary	October 15	Died.
4	Mary Gary	October 16	Died.
16	James Kennedy	October 16	Died.
17	Miss Young	October 18	Died.

Group of Cases Residing out of Infected District, but Exposed to its Atmosphere at Night.

Residence.	Name.	Date of Seizure.	Result.
10th and Magazine	—— Chapman	September 16	Died.
12th and Delaware	Pat. McNamara	September 22	Died.
10th bet. Grayson & Walnut.	Richard Moore	September 24	Died.

*Group of Cases Residing out of Infected District, having Night Work in Freight Depôt (*** on Map), corner of Ninth and Broadway.*

Residence.	Name.	Date of Seizure.	Result.
14th and Chestnut	E. B. Murray	September 12	Died.
10th and Dumesnil	Jerry Fitzpatrick	October 18	Recovered.


MAP OF
THE
YELLOW FEVER
DISTRICT
AND VICINITY
INCLUDING THE DEPOTS
OF THE
L.& N. & G.S.R.R.
LOUISVILLE. KY.
1878
BY
J.W. HOLLAND
BROADWAY
ELEVENTH ST
TENTH ST
NINTH ST.
TWELFTH ST.
MAPLE ST
LEXINGTON ST.
BIBLE ALLEY
COTTAGE ALLEY
NEW ALLEY
SLEEPING CARS
RECEIVING FREIGHT DEPOT
PASSENGERS
FACTORY
CHAIRS
ELEVATOR
FREIGHT TRANSFER
TANNERY
TANNERY
FREIGHT DELIVERY
FACTORY
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

EMMET'S OPERATION FOR LACERATED CERVIX UTERI.

BY J. W. COLLINS, M. D.

The recent publication of Dr. Emmet's work on Clinical Gynecology, and his clinical lectures for several years at the Woman's Hospital, have given this operation a prominence and interest with the profession that induce me to report the following cases recently operated on, which have encouraged me to believe that in this operation we have the means of overcoming certain pathological conditions not to be overrated by the gynecist, the treatment of which has heretofore been unsatisfactory, and in many instances the patient given up as incurable. We often find these cases of cervicitis accompanied by uterine leucorrhea and granular eversion of the os, more or less extensive, which apparently yield to rest, astringents, caustics and antiphlogistics for a time, only to return when the patient resumes her accustomed mode of life. They will come again into our hands to go over the same course of treatment, or perhaps will seek the advice of others. The pathology of this condition is made sufficiently prominent and plain by Dr. Emmet, so that no one who directs his attention to it can overlook it. That his treatment is the proper one I am led to believe by the results in his cases, which I had the pleasure of witnessing last winter at the Woman's Hospital, New York; and from the result obtained in these cases I am now about to report.

Case I. Mrs. S., aged thirty-five years—the first of these cases—I was called to see in February last, in company with Dr. R. R. Dashiell, her family physician. She had been suffering from womb disease for fourteen years, since the birth of her first child. The patient was considerably emaciated, and of a nervo-bilious temperament. When young she was quite stout, menstruated at thirteen years, and was healthy up to the birth of her first child. I found her suffering with a violent attack of hysteria and general neuralgia. She had been confined to her bed for six weeks, and I was informed that she had suffered with these symptoms, more or less, for fourteen years, and had been treated for this condition by several physicians of note. An examination by the touch demonstrated that she had a lacerated perineum, the womb anteverted, the neck enlarged and very tender, and bathed in a leucorrheal discharge. No course of treatment had given any relief, and her sufferings could only be palliated by hypodermic injections of one-fourth to half a grain of morphia.

With the assistance of Dr. Dashiell, an examination was made with Sims's speculum. The laceration of the perineum, down to and involving the sphincter ani, was demonstrated; the neck of the womb was found lying near the posterior vaginal wall, very much enlarged and dense to touch; the os covered with granulations, extending over to left side, showing a dense cicatrix occupying the line of former laceration, which could be traced by the eye down to the vaginal junction. The symptoms of endo- and corporeal cervicitis were all present; but pressure with the finger upon this cicatricial line gave great pain and increased the neuralgia felt in the temples and face, and brought on a fit of crying and hysteria. The diagnosis was a healed laceration of the cervix, and the line of laceration occupied by the plug of cicatricial tissue so well described by Dr. Emmet, on page 467 of his book, was very apparent. The laceration was left lateral, however, and not bilateral as described by him.

With the concurrence of the patient and husband, and of Dr. Dashiell, her physician, Emmet's operation was decided upon; and on February 14, 1879, the operation upon the cervix was performed by cutting out with the scissors a V shaped piece, including the dense cicatricial tissue before mentioned, and the incision brought together with four silver sutures and twisted as done by Dr. Emmet. There was but little blood lost, as the hot water vaginal injections had been used as advised by him. The patient progressed finely, without pain or any symptom that would indicate that an operation had been performed, save that of confinement to bed. On the seventh day (the 21st) the sutures were removed, and the line of union was found complete; the neck was reduced fully one-third in size, and the eroded condition of the os had entirely disappeared.

This patient progressed favorably, and on February 27th she menstruated unconsciously to herself, entirely free from pain and hysteria, for the first time in fourteen years, as she expressed it. The menstruation continued for five days, and more freely than usual. At the end of four weeks she menstruated again, without pain or trouble of any kind. The neck of the womb had decreased in size almost one half from what it was before the operation.

On the 15th of April, the operation for the restoration of the perineum was performed under ether, assisted by Drs. Dashiell and John I. Taylor. The sutures were removed on the eighth day and the line of union was found perfect, although the third stitch had broken. Six stitches had been inserted. The operation was done as practiced by Dr. Emmet, and a strong, firm perineum was the result. The uterus had resumed its natural position, was much reduced in size, and but little tenderness of the organ was then present. It was not afterwards found necessary to use any artificial support. The patient, whom I saw to-day (August 15th), has had no trouble; has menstruated with great regularity and with no pain, although she ran a sewing machine for an entire day during her fifth menstruation, since the operation. I consider her well, and she expresses herself as perfectly so.

Case II. The next case was in the practice of my brother, Dr. D. W. Collins. Mrs. C., twenty-eight years of age, menstruated at fifteen, and was married at twenty years. This woman gave birth to a male child at twenty-one years, at which time she was attended by an old midwife, who, she says, aided in her labor by getting behind her (she sitting up) and pushing from above downwards until she was delivered. As the result of such manipulation, she was badly torn and was confined to her bed for many weeks. She has had poor health, although she has borne two children since. The last four years she has been confined to her bed for most of the time. I found her much emaciated, and was suffering from a retroflexion of the womb and laceration of the perineum. Upon an examination by touch and speculum (Sims), I found she had free leucorrhea, granular erosion of the os, and upon the left side of the cervix a well marked cicatricial line which had been the seat of the laceration, down to and involving the vaginal mucous membrane—the same line of tenderness on pressure and deneseness to the touch, as found in the case just recorded. This patient did not suffer from hysteria to any great extent, but was very low spirited and without energy or hope. She had frequent attacks of neuralgia, could not stand upon her feet without much suffering, or pay any attention to her household duties. The perineum was torn back to the anus, and she had no support for the retroflexed uterus. The neck of the womb was large and tender to touch, especially in this dense cicatricial portion, covered with granular erosion and bathed in an offensive leucorrhea. She, too, had been the subject of much treatment, with no benefit.

I advised the same course with her as Mrs. S. She consented, and on the 14th of March last I performed the operation upon the cervix, assisted by Drs. Dashiell and D. W. Collins. It required five sutures to close the V shaped incision; they were removed on the seventh day, and the line of healing was found to be perfect, except at the bottom of the angle, where a portion of the cicatricial tissue was necessarily left. There was some tendency to granulate there, and the suture had partly cut out, but this afterward gave no trouble. A slight tenderness existed for some time at that point. The retroflexion was removed at the time of the operation, but returned after the removal of the sutures.

On the 4th of April I performed Emmet's operation on the lacerated perineum, restoring the retroflexed womb, and removing tissues well up the posterior vaginal wall, which, in my opinion, prevented a recurrence of the displacement. On the tenth day the sutures, six in number, were removed; the healing was perfect throughout in spite of a phlegmon, which was present at the time of the operation on the left labium, and was opened at that time. Her womb was found greatly reduced in size and in proper position, not needing a pessary. Since that time she has regained her health, and looks fresh and hearty, riding on horseback, and able to attend to her household duties, such as washing, cooking, etc.

Case III. The third case is that of a poor woman residing ten miles in the country, whom I thought necessary to take to my house to make the operation a success. She had lacerated perineum with retroflexion of the womb, and bilateral laceration, right and left of the cervix. The right side had entirely healed, but the line of laceration was filled with the dense cicatricial tissue before noticed; the left side had partially healed, leaving a long slit for the os, and partially filled with the cicatricial tissue, which upon pressure gave rise to pain in the left side, and extending up to margin of the ribs. This was a typical case, as the laceration of the perineum was quite down to the margin of the anus, and the line of laceration of cervix quite distinct to the eye as a glistening white line, and very dense to the touch. Mrs. B. is forty-four years of age, a widow, the mother of four children, the youngest seven years, at whose birth the accident occurred, and after which began her ill health. She menstruates regularly, but always since last delivery profuse and painful, and the pain referred to left hypochondrium and attended with profuse and offensive leucorrhea, so irritating as to excoriate at each epoch the external genitals. She has been confined to her bed for a great portion of the last four years.

An operation having been determined upon, it was performed on the 14th of June, assisted by Drs. Dashiell and Taylor. A V shaped piece was removed from each side of the neck of the uterus, the larger on the left side down to the vaginal junction. The tissue was very dense, and cracked under the scissors like leather. Two sutures were used upon the right side, and four upon the left. The hemorrhage was considerable, but easily controlled by hot water. The neck of the uterus was very large, resembling somewhat a tomato. I did not find it necessary to use the uterine tourniquet in either case, having prepared the patient by free use of hot water vaginal injections. The sutures were removed on the eighth day, and the line of union found complete. The erosion in this case, as in the others, had entirely disappeared; and the neck was reduced in size fully one half, was perfectly soft and pliable, and within ten days from the removal of the sutures all tenderness had disappeared. The retroflexion was reduced at the time of the operation, but subsequently at the next period recurred, and the pain in the left side also returned, but not so severely. She menstruated on the 30th, and had comparatively an easy time. The menses returned the second time on the 28th of July, with no pain and little disturbance of any kind, lasting five days.

The operation for lacerated perineum was performed on the 6th of August; Drs. Dashiell, Collins and Taylor assisting, and present also Drs. Brannock, Jones and Hubbard I pared the posterior vaginal wall well up to the top of the rectocele, and bringing down the lower edge of the cut surface with the top suture to the edge of the vulva, as practiced by Dr. Emmet, to give a firm long perineum, and also with the effect of reducing the retroflexion, as in the last case. The wire sutures were removed on the 14th of August, and the union was found complete and firm. This last operation healed with very little suppuration. The patient at this date (26th) is doing well, and will return home in a few weeks entirely restored to health, and without the necessity of a pessary for the retroflexion.

Remarks.—The importance of these operations in this class of cases can not be overrated, and I am sure that this pathological condition as a cause of uterine disease is much more frequent than we are aware of. I have found in the last six months no less than eleven women, who have borne one or more children, who are now suffering with chronic uterine disease, and all of them have laceration of the perineum unmistakably and decidedly; and each one shows the subjective and objective symptoms of lacerated cervix in some degree, varying in the several cases. Some of the fissures are bilateral, some lateral, and one through the posterior lip, involving the vagina, and resulting in irreducible retroversion of the womb on account of contracted cicatrix in the *cul de sac;* another whose uterine neck is completely protruded through the vulva; another with the perineal laceration entirely through the sphincter ani, leaving only the recto-vaginal wall, with bifid laceration of neck of the uterus. Dr. Emmet is certainly entitled to great credit for directing professional attention to this lesion, and also for instituting a comparatively harmless operation for its cure, and the complete and only means of the removal of its sad effects upon women.

In every one of these cases above mentioned there have been the clearly described effects of malnutrition well defined. And I fully believe that in these operations, properly chosen and performed, we have the means of giving relief to hundreds of suffering women, who were heretofore considered beyond the pale of medical skill. I can look back over my short professional life, and am sure that a considerable number of my failures in this line of practice has been due to the fact that I knew nothing of this mode of treatment of this pathological condition; although I have, with others, been sewing up lacerated perinea for years—imperfectly, it is true, compared with Emmet's operation — but my mind has not been heretofore directed to the leading pathological condition (that of the cervix), fraught with such direct and indirect effects upon the health of child-bearing women.

I have several other cases of this kind to operate on soon, and will give to your readers an account of them through your valuable journal.

JACKSON, TENN.

FATAL RESULT OF CHLORAL POISONING.

BY A. G. CRAIG, M. D.

On the eighth of May last, about three o'clock in the afternoon, Dr. D. of this city—a most excellent practitioner—was called to see Mrs. K., a stout and healthy-looking woman, pregnant seven months, the mother of four children. He found her threatened with premature labor; the pains were moderately severe, and there was slight dilatation of the os. He prescribed fifteen grains of chloral every fifteen minutes, until she had taken four doses. As the pains continued and sleep was not induced, in fifteen minutes after he had admintered the last dose he gave her twenty grains—making eighty grains in all. In a few minutes she was asleep, and he went to his office. About two hours later he visited her and found her in the following condition:—Pulse 150, small, weak and compressible, and almost imperceptible; respirations about ten per minute, inspiration occupied about one second, and expiration four or five seconds. She breathed through her mouth, it being wide open. Breathing was stertorous. She could be roused slightly by speaking loud to her, or by pinching up the skin, but she would immediately sink into a profound stupor. Her pupils were very slightly contracted and fixed, and would not respond when a bright light was brought near the eyes Her skin was of a dark bluish or purplish color, more marked in the cheeks and around the eyes than elsewhere. There was a bruit heard over the heart and along the ascending aorta, very indistinct.

I was sent for to see her in consultation with Dr. D., and found her in the condition as described above. We immediately injected $\frac{1}{120}$ of a grain of atropia hypodermically, which we repeated in fifteen minutes; we also gave her strong coffee freely, and endeavored to keep her awake by speaking loud to her, and by having her walked across the room occasionally. About one hour after I first saw her we injected hypodermically $\frac{1}{60}$ of a grain of strychnia. Electricity was also resorted to, but without any apparent benefit. A drachm of whisky was injected hypodermically every half hour during the succeeding twelve hours. We also administered two and a half grains of carbonate of ammonium every thirty minutes. Sinapisms were applied over her spine and to her limbs, and bottles filled with hot water to her body.

At seven o'clock P. M. she was unconscious and insensible. She could be pinched or slapped, or her conjunctiva touched with the finger, without arousing her. In fact she was as profoundly anesthetized as she could have been with chloroform; and in this unconscious and insensible condition she remained through the night. At ten o'clock P. M. respirations five per minute, breathing stertorous and through the mouth, expirations four or five times as long as inspiration. Loud rattling sound in her throat like coarse subcrepitant râles. A frothy matter exuded from her nostrils constantly—a pint or two—similar in character to that which oozes from the mouth and nose of dead persons a few hours after death Pulse 160, small, weak and almost imperceptible. Skin cool—the purplish color rather more marked; the capillary circulation very sluggish.

At midnight there was slight improvement in some of the symptoms; pulse 145 or 150, respirations ten or eleven per minute, breathing stertorous, and she remained insensible and unconscious.

At three o'clock A. M. on the 9th instant, the pulse was 140, still very weak; respirations eighteen or nineteen per minute. Breathing stertorous, and through a wide open mouth. No change in the color of the skin. Temperature, 103° Fahr. At five o'clock A. M. her condition was unchanged, excepting respirations were more frequent. At seven o'clock A. M. she presented some indications of consciousness; other symptoms much the same.

At eight o'clock A. M. labor pains set in. She would bear down when she had a pain; breech presentation. Labor progressed rapidly, and terminated in an hour: child born dead.

The placenta came away without any difficulty, and the womb contracted firmly. There was very little blood lost. Temperature immediately after confinement, 101¼° F.; respirations twenty-three per minute; breathing slightly stertorous, and through the mouth; inspiration short, expiration prolonged. Pulse 120, small, weak and compressible. Color of skin unchanged. She is more conscious and sensible; says she slept well last night, and recollects nothing that transpired.

I did not see the patient during the next twenty-four hours, but Dr. D. informs me that she gradually failed. She became very restless and nervous; was more conscious, but was not sensitive to pain. At eight o'clock A. M., May 10th, I again saw her. The pulse was imperceptible in the left arm, but could be felt in the right; respirations thirty-three per minute, and stertorous breathing. The bowels were tympanitic, with slight soreness over the womb. There were mucous and subcrepitant râles at the base of the right lung, and at the apex of left lung. She was conscious and sensible; failed gradually, and died at ten o'clock A. M.

VEVAY, IND.

OIL OF TURPENTINE IN SOME FORMS OF PARALYSIS.

BY J. B. GROVE, M. D.

Scientific medicine seems to be in the midst of an unusually rapid advancement in the art of pharmacy and therapeutics; and especially is this true with reference to the discovery of new and heretofore scarcely recognized remedies, and the invention of new and complicated compounds. But is there not some reason to fear that, in our eager zeal to find something better, we may neglect or lose sight of that which we have long known to be good? In order that I may, to some extent, be instrumental in saving from oblivion a very old and a very common remedy, I will give a brief history of four cases that came under my personal observation.

Case I. In 1856, while resident physician of the Yuba County Hospital at Marysville, California, I had under my care a case of paraplegia, which had been in the hospital for three years; and during all of that time the lower half of the body had been completely paralyzed, and the upper half nearly in the same condition. He had been treated by my predecessors with all the approved remedies recommended in such cases, but had received no benefit from the treatment. I could not obtain any correct information in regard to the history of his case previous to his admission into the hospital. I made the following prescription:

℞ Mucil. gum. acac., ... ℥ iij
Ol. terebinth., ... ℥ j
Spt. lav., com., ... ʒ j. M.
S. A tablespoonful three times a day.

In less than a week improvement was apparent. The medicine was continued, and at the expiration of four months he was able to walk with the help of a cane. He continued to grow better gradually for a year, when I left California and have not heard from him since.

Case II. In 1859 I located in Marshall, Saline county, Missouri, and soon after was called in consultation with Dr. Le Grand Atwood, the attending physician, to see a gentleman by the name of Parsons, aged sixty years, who had been afflicted with paraplegia for eighteen months. He had been treated by a number of different physicians, and had consulted one or more of the most eminent physicians in St. Louis, but had derived no benefit whatever from the prescribed treatment. I made the same prescription that I had used in the other case. In less than a week he could move his toes, and in less than six months he was able to walk and attend to business as well as he could before the attack. In these two cases the above prescription was the only medicine used. No unpleasant effects resulted in either case from the use of the remedy.

CASE III. In August, 1878, I was called to see Mr. Elwood Reynolds, of this city, who at the time was partially paralyzed, and in a few days became almost entirely so. Voluntary use of the lower extremities was completely lost. One side of the upper half of the body the same, and partial paralysis of the other side. For several weeks he suffered with high fever and severe pain. A very large carbuncle made its appearance under the right scapula, which added to the danger otherwise impending. His general condition was so precarious, that I deemed it inexpedient to give the turpentine. During the acute stage the treatment consisted of purgatives, aconite, quinia and chloral; the latter had to be used freely, to procure sleep and relieve pain. When the carbuncle commenced sloughing, the discharge of pus was very profuse, which rendered a supporting plan of treatment absolutely necessary to prevent death from exhaustion. As soon as the sloughing process was completed, his general health, which had been impaired for several years, began to improve, and in the course of a few years he felt better than he had for years; but the paralytic condition still continued. I now commenced the use of the oil of turpentine, and it was but a short time till a very marked improvement was apparent. He continued to improve for several months, when the turpentine disturbed the stomach and had to be suspended. I then used galvanism and strychnia, but as no perceptible good resulted they were discontinued. I have tried the turpentine since, in doses varying from twenty, down to five drops three times a day, but it seems that he can not or will not tolerate it. His general health is good. He eats well and sleeps well, has gained thirty pounds in weight, and can walk tolerably well with a little assistance.

CASE IV. In March, 1879, I visited Mr. Alfred Blessing, a farmer, living seven miles from the city, in consultation with Drs. A. J. Banker and F. D. Norton. On examination found the lower half of the body completely paralyzed, and one side of the upper half nearly in the same condition, and the other side also partially paralyzed. From Dr. Norton, his attending physician, I learned that his health had not been good for several weeks; that he had been complaining of fugitive pains in different parts of the body, but principally confined to the lower extremities. The loss of voluntary motion came on gradually. The high temperature, fever, and intense pain present, indicated to my mind active neuritis. There was but little impairment of the intellect, which led me to think the brain was not seriously involved. I suggested the oil of turpentine and hydrate of chloral, which were given. The latter seemed to act badly, and was discontinued after a few doses had been taken, and hypodermic injections of morphia and atropia used instead of it. The dose of the turpentine was reduced from thirty drops (the dose first prescribed) to twenty drops three times a day, and was continued for four or five weeks. In the course of a week improvement was plainly manifest, and by the first of July he was able to walk. He has been getting better ever since, and is now able to get around about as well as he could before the attack. The right arm is not quite well yet, a little impairment of motion remaining. His general health is excellent.

I give these cases for what they are worth. I have endeavored to state plain and simple facts, without any attempt to elaborate. I trust that other physicians, having similar cases in charge, will give the remedy a fair trial and report results.

COLUMBUS, IND.

FOREIGN CORRESPONDENCE—OUR LONDON LETTER.

London, November 15, 1879.

My dear Yandell: The medical schools have opened most successfully, the entry being unusually large. The explanation of this is that we are passing through a period of great depression. The apology for a summer has ruined lots of our farmers: commerce is depressed partly from overstocking the markets, partly from want of confidence in our harlequin government, nobody knowing what dangerous prank they may play off next. Consequently a large number of youths have thrown in their lot with medicine, who would otherwise have become agriculturists or traders. Whether this year's entry will turn out a success or a failure ultimately from this accession of youths who have not been brought up to regard medicine as their lot in life, it will be interesting to know. The different lecturers who delivered the opening addresses seem to have borne this new element in mind in the excellent advice they tendered the new comers. Dr. Coupland, at the Middlesex Hospital, in his address laid much stress on earnestness in study, and told his hearers very distinctly that if they could not throw themselves heart and soul into the work, they had better abandon medicine and take to some other kind of existence. How many of this year's entry will be found missing next year, if commerce looks up in the meantime, it will be hard to say; but I venture to think the proportion will be large. By the time that they have begun to be on pretty familiar terms with the bones of the wrist a good many of them will think a ledger not so very objectionable after all, nor the legs of a high stool as deterrent as they may appear at the present time. But, however, we will see if we only wait.

At University College Hospital, the introductory address was delivered by Mr. Thane, the Professor of Anatomy; with a well justified pride in the little hospital, with its illustrious school, Mr. Thane reviewed its past history. Sir Charles Bell delivered the first lecture. The chairs of comparative anatomy and pathology, the first in the kingdom, were filled respectively by R. Grant and Sir Robert Carswell, famous for his researches on tubercle. The first systematic course of clinical lectures was delivered here by Robert Liston. The offices of dresser, clinical clerk, and house surgeon, were thrown open to the students, to be gained by merit not by payment, as had universally been the case before. The influence exercised upon medicine by the teaching of University College Hospital during the half century of its existence, has simply been profound; and every improvement in medical teaching has been in a great degree the result of the example set by the little college in Gower Square. I know how thorough is your personal admiration for the little place, and feel sure you will like to see its history made more known. It will, perhaps, be news to many of your readers that the amount of hard money given to this hospital, by its medical staff sacrificing their fees, amounts to no less a sum than two hundred thousand dollars. Consequently the medical staff are a power in the hospital, which has operated most usefully for good both to the place and the students. It is said, however, that University College no longer keeps so clearly ahead of other medical schools in the production of prizemen, but that is not in any way due to an inferior material or impairment in the teaching: of old, men often beyond the ordinary student age gave extra time to their studies, and therefore beat the other competitors who had only undergone the usual course of study. Be that as it may, all must acknowledge the prominence of University College Hospital in the teaching of medicine.

In the Practitioner is an article on Hysteria in Boys, by Dr. William Roberts, of Manchester; a subject on which little is known, but which is of deep interest. He does not bring forward the subject as a new one, but to enforce the knowledge of the fact that is oft forgotten, "that hysteria is neither a disease of a particular organ nor of one sex. A hysteric, whether male or female, is essentially a performer, and, like other performers, must have an audience. The most inveterate hystero-epileptic was never found in a solitary place, where she was safe from being seen or heard. You may say that had not men and women been gregarious, the race would never have been afflicted with hysteria."

He continues:—"I shall make no comment on these cases, but I should like to say a word about the name hysteria. It is one of the most ancient in nosology; it has penetrated into every civilized language, it has passed into common parlance; everybody grumbles at it, and nobody can get rid of it. Even as regards the female, it is wholly misleading, for hysteria is in its essence a cerebral disorder. As applied to men, it is a grotesque misnomer. Looking at the etymology of the term, it is as absurd to speak of hysteria in a man as it would be to speak of orchitis in a woman. And yet there is a sense in which its use may be justified. The complaint is distinctly a feminine complaint — I mean feminine, not in the sense of gender, but having regard to the whole feminine character. When men betray hysterical symptoms, they may emphatically be said to 'play the woman.' And I know not whether—I commend the suggestion to evolutionists—the occurrence of hysteria in males is not as truly a 'memory' of man's hemaphrodite ancestor, as the rudimentary nipples which adorn his breast. It would be some relief to our sense of injured expressional propriety, if we were permitted to use the word 'hysteroid,' especially in regard to what is called 'local hysteria.' It would grate less unpleasantly on the ear to speak of a 'hysteroid' joint, a 'hysteroid' stomach, and 'hysteroid' manifestations in men and boys, than to use the word 'hysterical' in the same connection."

Closely associated with this condition stands "Irritable Spine as an Idiopathic Condition." Dr. Sinclair Coghill, Physician to the National Hospital for Consumption, Ventnor, Isle of Wight, has recently given his views on this affection. He finds that among patients sent to Ventnor, as private patients—the hospital patients are all carefully examined and reported on before being accepted—a number suffer from irritable spine. He then says:—"I have, of course, in common with my professional brethren, from time to time, been consulted by patients in whom certainly localized tenderness in the spinal region, especially its lower segments, was present as an incidental condition accompanying uterine disorder; and in a milder form symptomatic of gastric ulcer. But, at the same time, I have occasionally met with cases in which I am quite sure this association did not obtain, and which presented all the characters of an idiopathic affection well defined as regards etiology, symptoms, and amenability to a particular form of treatment, based upon this theory of their pathogeny."

He then relates four cases in which strychnia, quinia and iron were given in the day, with bromide of potassium at bedtime when a narcotic was indicated. Then, as a local application over the tender spots, he used a Corrigan's hammer, either heated in boiling water, or in one case brought to a blue heat—a spongiopilius pad, soaked in belladonna liniment, being applied in the intervals betwixt the application of the hammer. He says:

"What I would now especially draw attention to, in connection with the cases just described, is the remarkable identity exhibited: 1. In the predisposing temperamental or diathetic conditions; 2. In the exciting cause, pointing to exhaustion of nerve force; 3. In the general symptoms, including the entire absence of all hysterical phenomena; 4. In the seat and character of the local morbid manifestations; 5. In the absence of febrile movement; 6. In the invariable phosphatic condition of the urinary secretion; 7. In the condition of the vascular system, indicating local plethora, or passive venous congestion in the seat of the pain; 8. In the absence of any evidence of peripheral irritation sufficient to set up a reflex pathological action or process in the spinal cord; 9. In the rapid and regular resolution of the morbid phenomena, under treatment based on the indications as above stated, and mainly directed in an active form to the central seat of their manifestation. I venture," he continues, "to deduce from the observations just formulated:—1. That we may have cases of so-called irritable spine (which term I prefer), present as a primary or idiopathic morbid condition entirely independent, so far as reflex nervous action is concerned, of peripheral excitation; 2. That the sanguineo-lymphatic temperament is the usual predisposing diathetic cause; 3. That exhaustion of nerve-force, especially through the brain, is the common exciting cause; 4. That it is not inflammatory in nature, nor accompanied by pyrexia; 5. That the vascular system, probably through the vaso-motor nerves, is principally involved in the production of the morbid phenomena; 6. That the affection or disease itself consists essentially of a passive congestion of the venous plexusses within the vertebral canal, which induces pressure on the nervous structures to which they correspond, either directly from increase of caliber from dilatation, or indirectly from inducing a certain amount of local edema in the spinal membranes This theory of the pathological anatomy of one form at least of irritable spine is, of course, in the absence of any opportunity of post mortem examination, based entirely on a study of the symptomatology of the affection, and as such only is brought forward on this occasion."

The increasing amount of disease and disorder of the nervous system at the present time lends a special value to these observations given above.

The subject of color blindness, especially in regard to railway men, as engine-drivers and others, is attracting attention here in relation to railway accidents. Mr. Herbert Page, of St. Mary's Hospital, and Surgeon to the Southern Section of the London and Northwestern Railway Company, has given much attention to the subject. He is very much inclined to hold that the test adopted usually, viz., Holmgsen's skeins, is insufficient; and because uneducated and unlearned men can not sort these skeins, is to his mind the very poorest evidence of their being color blind. In one case he spent thirty-five minutes over one man, who, if he had been left to himself with the worsteds, would probably have been set down as color blind. "Investigators seem agreed that color blindness is much less frequent among women. Why? Because from their youngest days women have 'had to do' with colors in the petty adornments of millinery and dress; and it is only from the lack of the same opportunities of cultivating it that men's sense of color is inferior to theirs." The London and Northwestern Railway Company has instituted annual examinations by inspectors of all its engine-drivers, as to sight and color blindness. One man had been an engine-driver for many years who was found to be "red-green" blind; and after he was discharged from his place admitted he was perfectly unable to distinguish these two colors. Just fancy how many a narrow shave of an accident must have occurred during this man's term of office as an engine-driver.

Mr. Page declares himself as decidedly skeptical about the results of those examinations, where hundreds of people are examined in a short space of time; holding that much time and care are requisite for proper and sufficient examination; and after such examination it will be found that "true color blindness, as Dalton has it, is but very rarely to be found among males in this country." Of the vital necessity for searching examination of the sight in railway servants and in sailors, no one can hold a doubt.

The profession have recently been perturbed by a very clever gentleman, who may show himself on your side of the water possibly, after he has made it too hot for himself here. He is a good-looking gentlemanly-mannered German, who gets up a man's books and their contents, and calls and talks about them. This very naturally throws a man off his guard, and then when the vanity so flattered has laid the judgment asleep, a tale is artlessly introduced of his satchel—containing his money, his letters of credit, even his very visiting cards—being stolen by some of the crowd who rushed on board the Hamburg steamer when she reached the docks in the Thames. His holiday is thus wasted; he has no money to telegraph to his bankers, or to pursue his journey to Oxford, where he is anxious to read in the Bodleian: it is this, not the mere money loss, which is the trouble of "Dr. Plieth, of la Charité, Berlin." Of course he gets a loan—who could refuse a gentleman so distressed?—and disappears. A series of letters in "The Times" testify to his skill in allaying the suspicions of his victims; but the police are on his trail, and the treadmill looms up before him pretty clearly.

Reviews.

The Principles and Practice of Gynæcology. By THOMAS ADDIS EMMET, M. D., Surgeon to the Woman's Hospital of the State of New York, etc. With one hundred and thirty illustrations. Philadelphia: Henry C. Lea. 1879.

Dr. Emmet's volume has been before the profession for nearly a year, and it has been most cordially received, while the praise of the medical press has been most general. We have no desire, even had we the power, to disturb this verdict of approval. The book is worthy of the highest commendation; it embraces the mature experience of an honest, able man in a field vaster than has ever been afforded any one upon this continent. It is eminently an original work, and contains material that will be incorporated into other books—indeed germ thoughts and truths out of which new books may grow.

The first chapter discusses the relations of climate, education and social conditions to development—all in five pages. From the brief space occupied by this important consideration, one may judge that much condensation of thought and expression must be necessary. Indeed some of the sentences read like detached aphorisms. Most of Dr. E.'s statements we are in full accord with; but some of them we at least may be permitted to doubt, *e. g.*, the following on page 20:

"Music, also, from its emotional effect on a sensitive nervous system, has arrested the development of the ovaries and uterus of many a young girl."

We shall not discuss this statement now, but simply antagonize it by the following extract from Raciborski: *

---

* Traité de la Menstruation.

"Nevertheless, it suffices it was demonstrated that music would act as an excitant to the genital sense, so that we think ourselves authorized to conclude that it may be considered one of the causes explaining the precocious puberty observed in girls of rich families."

The second and third chapters—Instruments used in examinations, Surgical instruments and appliances—contain numerous illustrations and are excellent. So, too, the fourth and fifth chapters are exceedingly valuable, though really, if we had time, we would dispute the following assertion, found on page 81:—"Inflammation of the uterine body never occurs except after parturition."

In the sixth chapter, entitled Principles of general treatment, among other topics considered is that of the influence of the mind over the body, and few pages in the book will be found as interesting or as valuable as those devoted to it.

On page 95, the author states that for years past he has abandoned the use of the hypodermic syringe; and again on page 280, that he fears the inventor of this method "has given a curse to the human race instead of a blessing." But is not this going to the opposite extreme? Because there is abuse of the hypodermic method, must it be abandoned? We doubt whether the profession will ever sustain Dr. E. in the position he takes.

We have neither time nor space to present a statement of the successive chapters, and the subjects discussed in them: but we shall briefly present from different parts of the work some matters for criticism or interrogation.

On page 237, in the consideration of hæmatocele, Dr. Emmet states—"Bernutz regarded the source of the blood as in the uterus, and that it was simply the retained menstrual flow, which regurgitated through the fallopian tubes. This view seems to merit scarcely more than a passing remark. It is now well known that the contents of a distended uterus never pass into the peritoneal cavity, unless by rupture of the organ itself, or of the uterine portion of the tube which may have become dilated.." Now, if any one of our readers will take the trouble to read Bernutz's article upon *Hématocele Utérine,** we think he will find Dr. Emmet in part mistaken as to the teaching of this admirable observer, and also mistaken in the assertion that it is impossible for blood to flow from the uterus into the peritoneal cavity through an unruptured oviduct. So too, he may be enlightened upon the latter point by referring to Chapter XXI in Barnes.† Is not Dr. Emmet mistaken, too, in his definition of hæmatocele? Is there at least an intra-peritoneal hæmatocele without the effused blood has been encysted?

The thirteenth chapter, entitled Diseases of the pelvic cellular tissue, occupies some thirty-three pages; and in this chapter is included also inflammation of the pelvic peritoneum. Dr. E. declares his inability to diagnose between inflammation of the pelvic peritoneal and of the pelvic connective tissue. Nay, he asserts that "pelvic peritonitis can not exist alone, but must rapidly involve the cellular tissue invested by it." Now, any one who has studied the writings of Bernutz,‡ and believes his researches, will not accept this statement. So, too, after studying the admirable article upon *Péritonite,*§ by Siredey and Dulos, the reader will find reason to doubt the importance and prominence given by Dr. E. to cellulitis as cellulitis, but name the inflammation peritonitis. Courty states positively that any considerable inflammatory tumor of the pelvis, autopsies have demonstrated has always resulted from an inflammation, more or less extensive, of the peritoneum. Aran found, so common is pelvi-peritonitis in woman, that fifty-five out of a hundred present post mortem evidences, in peritoneal adhesions, of having suffered at some time in their lives with this form of inflammation.

Dr. E. might have cut the Gordian knot of diagnosis between pelvi peritonitis and pelvi-cellulitis, by doing as Courty has done, calling these manifestations of disease peri-uterine

* Nouveau Dictionnaire de Médécine et de Chirurgie Pratiques, vol. xvii.

† Diseases of Women.

‡ Clinique Médicale sur les Maladies des Femmes.

§ Nouveau Dictionnaire, vol. xxvi.

inflammation. But at any rate we do think, contrasting his teaching especially with that of the leaders of the French school, he exaggerates the frequency and importance of cellulitis—it is cellulitis almost always and everywhere through the chapter, peritonitis being only briefly referred to.

In the treatment of cellulitis, Dr. Emmet extols hot water injections, stating that they will abort the disease if thoroughly employed at the beginning. Unfortunately the physician rarely sees the patient early enough to make good any abortive treatment, and the therapeutic agents then recommended are opium and blistering; but the opium is not given, as advised by Dr. Alonzo Clark, *pleno manu.* We doubt whether sufficient prominence is given to the opium treatment by Dr. Emmet. Nothing, too, is said by him as to the value of local depletion, or of sulphate of quinia, which Siredey and Dulos assert acts in pelvi-peritonitis by moderating the circulation, lessening pain and as an antiseptic, nor of the ice-bag also recommended by these authorities. The profession would be very grateful to Dr. Emmet, if he were to enter more fully into the clinical history, the prognosis and the treatment of acute pelvic inflammation.

In a previous chapter, Dr. Emmet mentions a case of menstrual retention from acquired atresia, where (p. 216) he freely washed out the uterus with tepid water, after having evacuated the uterine accumulations; and states, in a foot-note, that he has been unable to find that any operator previous to this date (June, 1864) had pursued such practice. In a former number of the American Practitioner, we called attention to the fact that Récamier had advised this practice, and that it had been tried, with a fatal result, by Maisonneuve in 1862.

In the chapter upon uterine inversion, the etiology of this displacement is very briefly and imperfectly considered. Dr. Emmet justly rejects the notion that inversion always results from traction upon the cord—a notion that certainly no intelligent physician holds; and this rejection he bases upon the fact that the accident would be a more common one from the frequent pulling upon the cord "by all the old women in and out of the profession."

Immediately after this he turns abruptly from inversion in child-birth to non-puerperal inversion, giving Schroeder's explanation of inversion from a tumor at the fundus. So far as inversion after delivery is concerned, the explanation given by Schroeder is applicable to only one, and to this only in part, of the four kinds of uterine inversion so admirably explained by Dr. J. Matthews Duncan.* We believe Dr. Emmet goes too far in the belief that inversion is rarely due to traction upon the cord. Ordinarily no such accident is produced, because, first, when such traction is exerted, the placenta is already detached; or, second, being still attached there is no paralysis of the womb, either general or at or below the placental site; but given one or other of these latter conditions, and pulling upon the cord may, we had almost said must, evert the womb.

In referring to vesico-vaginal lithotomy, Dr. Emmet states that he does "not know to whom we are indebted for this procedure." According to Rousset, two surgeons named Charlemagne and Jacques Bellays first performed this operation, and some time afterward Fabricius de Hildanus enlarged by incision a vesico-vaginal fistula for the removal of a stone. Ruysch too, we believe, was one of the early operators by this method. In 1855, Vallet, of Orleans, published two cases of vesico-vaginal lithotomy, where the operation was completed by the immediate suture.

We purposed some remarks upon the twenty-third chapter, Different forms of fistulæ, especially in connection with the subject of uretero-vaginal fistula, calling attention to the fact that the reviewer was the first American to describe this lesion,† and to report a case of successful operation for it, but space is wanting.

Many more things we would like to say of the book, many topics we would like to discuss, but we must stop, concluding by fully and heartily indorsing the commendation of the volume given at the beginning of this brief review, expressing our gratitude to Dr. Emmet, and our gratification that his laborious work has been so favorably received by the profession.

---

* Researches in Obstetrics.

† Western Journal of Medicine, October, 1867.

On Diseases of the Stomach—The Varieties of Dyspepsia, their Diagnosis and Treatment. By S. O. HABERSHON, M. D., London, Senior Physician to and late Lecturer on the Principles and Practice of Medicine at Guy's Hospital. Third edition. Philadelphia: Lindsay and Blakiston. 1879.

In the present volume, the author places before the reader "the result of many years of experience in hospital as well as in private practice;" therefore, the subject-matter is not theoretical, but written from a clinical stand-point.

Four-fifths of the contents of the book relate to dyspepsia, and it is well that it is so, for more than four-fifths of the diseases of the stomach which afflict man are of a dyspeptic nature.

The forms of dyspepsia are treated under the several heads of atonic, congestive, inflammatory, hepatic, rheumatic and gouty, dyspepsia connected with disease of the kidney; these varieties affecting the mucous membrane and its secretions. Then are considered dyspepsia from mechanical interference with muscular movements of the stomach, nervous or sympathetic dyspepsia, fermentation of, or chemical change in the contents of the stomach as a cause of dyspepsia, and duodenal dyspepsia.

Chapter XIV, on sympathetic dyspepsia, is one of the most valuable in the book. The author truly says that "perhaps the most important form of sympathetic disturbance of the stomach is that connected with disease of the brain; and the consideration of this is the more necessary, because in such cases the true nature of the malady is often overlooked.

There are some peculiarities, however, which serve to distinguish this form of malady; in one class the subjects are young, of an active mind, intelligent and precocious. There may be some headache, and temporary disturbance of vision, grinding of the teeth, disturbed nights and restless activity of mind during the day, and without any apparent cause vomiting is set up and the illness is regarded as a 'bilious attack,' which is the most serious mistake that could be made, for the sole attention is then directed to the stomach and the liver; the nature of the malady is overlooked, and the treatment misdirected. In the diagnosis of these cases, where irritation of the brain is the cause, the head is hot, the pupils generally small, the tongue clean, the abdomen contracted, and the bowels confined."

Again, disease of the lungs, especially of a tubercular nature, by the implication of peripheral branches of the pneumogastric, causes reflex disturbance of the stomach. This may be observed in delicate strumous subjects, and although there may be no cough, physical examination may show that the apices of the lungs are diseased.

The chapters on ulceration of the stomach and cancerous disease of the stomach, deal concisely and yet sufficiently of their diagnosis and treatment.

Memoranda on Foisons. By THOMAS HAWKES TANNER, M. D., F. L. S.
Fourth American, from the last London enlarged and revised edition.
Philadelphia: Lindsay and Blakiston.

This is one of the small books which contains much. The subject-matter is divided into general remarks on toxicology, corrosive poisons, simple irritant poisons, specific irritant poisons, neurotic poisons, and an appendix treating of the bites of reptiles and rabid dogs. In regard to the diagnosis of poisoning, the author calls attention to the suddenness with which the symptoms usually commence, the individual being well up to a short time before; and it must also be remembered, he says, that many disease, as cholera, internal hemorrhage, etc., come on suddenly and rapidly prove fatal. Under general remarks on treatment, he emphasizes the rule, "never wait for a remedy, however perfect, if an imperfect one is at hand; that is best which is readiest—the grand rule being, *lose no time.*"

First Step in Chemical Principles—An Introduction to Modern Chemistry, intended especially for Beginners. By HENRY LEFFMANN, M. D., Lecturer on Toxicology in the Summer School of Jefferson Medical College, etc. Philadelphia: Edward Stern and Co. 1879.

The author says, "my purpose is to make clear, by elaborate explanation and illustration, those points in theory, notation and nomenclature, which give trouble to beginners." That he has made these points very plain for the student is shown conclusively in this little book. Dr. Leffmann possesses one of the chief characteristics of a good teacher—the ability to impart his knowledge to others; and to all medical students to whom chemistry is a bugbear, we would candidly recommend this introduction to chemistry.

Pocket Therapeutics and Dose-Book. By MORSE STEWART, Jr., B. A., M. D. Second edition, revised and enlarged. Detroit, Mich.: George D. Stewart. 1878.

As our friend from Erin would say, it's a pity the second edition of this little book could not have been issued before the first, as it is larger, much more complete and perfect in every way, than the former edition. Most of the typographical errors have been corrected, although some await the third edition. Among other useful things the book contains classification of medicines, posological and therapeutical tables, incompatibles and antagonists, diseases and remedies, and the treatment of poisoning.

The Multum in Parvo Reference and Dose-Book. By C. HENRI LEONARD, M. A., M. D. Third edition, revised and enlarged. Detroit. 1879.

This new edition contains the doses of over twenty-five hundred preparations, two hundred and twenty-five of which are *new* preparations. The student and practitioner can rely on the correctness of the doses as given here, for the pages have been "proof-read ten times by seven different individuals, five of whom are or have been college professors."

Beside the dose list, there is a table of incompatibles, list of poisons and their antidotes, and lastly a division called "short-stops," which contains many practical hints, gathered from books and practice.

The Physician's Pocket Day-Book. By C. HENRI LEONARD, M. A, M. D. Third edition, revised and enlarged. Detroit: Published by the Author. 1879.

There are many physicians' visiting lists, pocket day-books, etc., on the market just now; and this one of Dr. Leonard is one of the best, on account of its compactness and arrangement, both for what it contains and what it does not contain.

The Physician's Visiting List for 1880. Philadelphia: Lindsay and Blakiston.

This visiting list has been in use twenty-eight years, and among all the books of its kind has held its own. It has no superior, and few so good.

Clinical Medicine: A Systematic Treatise on the Diagnosis and Treatment of Diseases—Designed for the Use of Students and Practitioners of Medicine. By AUSTIN FLINT, M. D. Philadelphia: Henry C. Lea. 1879.

The illustrious and most eminent of American physicians has no idle minutes, but seems to be working as assiduously as though still climbing up the heights of fame. His example of industrious labor is worthy of all praise and of imitation. The volume contains nearly eight hundred pages, and discusses after the introduction—which considers clinical medicine, its meaning, purpose and means, etc.—diseases of the respiratory system, of the circulatory system, of the digestive system, of the urinary and of the nervous system, and finally fevers and other general diseases. It will be quite as favorably received by the profession as the previous works of its distinguished author have been, and it undoubtedly richly deserves such reception.

Atlas of Skin Diseases. By LOUIS A. DUHRING, M. D., Professor of Skin Diseases in the Hospital of the University of Pennsylvania, etc. Part V and Part VI. Philadelphia: J. B. Lippincott and Co. 1879.

In Part V are represented by plates, four rather common diseases of the skin—namely, scabies, herpes zoster, tinea sycosis, and eczema vesiculosum. Very marked cases have been selected, the eruptions being a little more prominent than is seen in an average case. In Part VI are illustrated syphiloderma pustulosum, erythema nodosum, seborrhea, and eczema papulosum.

A concise explanatory text accompanies each plate, and we know of no better way of gaining a knowledge of skin diseases, except at a clinic of these diseases, than through this Atlas.

Manual of the Principles and Practice of Operative Surgery. By STEPHEN SMITH, A. M., M. D., Surgeon to Bellevue and St. Vincent Hospitals, New York. Boston: Houghton, Osgood and Co. New York: 21 Astor Place.

Here is a small octavo of nearly seven hundred pages, between seven and eight hundred well-executed illustrations, printed admirably as everything is that comes from the Riverside Press.

It is wonderful that so much valuable information could be brought within the limits of such a volume. Dr. Gross has very well characterized it as "a great book," and we are sure it will be a welcome addition to the library of every general practitioner. The faults that have been or may be found with Dr. Smith's book, are largely inseparable from the necessity of presenting in such brief compass so many subjects; and we are sure the merits much more than overbalance any defects.

Diseases of Women. By LAWSON TAIT, F. R. C. S. Second edition, thoroughly revised and enlarged; specially prepared for "Wood's Library."

Infant Feeding and its Influence on Life, or the Causes and Prevention of Infant Mortality. By C. H. ROUTH, M. D., M. R. C. P. L. Third edition.

These two volumes are the latest issues by William Wood and Co., in connection with their library of standard medical authors. They are excellent works, and have received the warm approval of the British profession, and we are very glad that American physicians can have them so much cheaper than they would be if imported.

Clinic of the Month.

Treatment of Enteric Fever.—In Vol. IX, St. Thomas's Hospital Reports, just issued, we find the following *résumé* of the treatment of seventy-one cases of enteric fever, in which the death-rate was 11.1 per cent.:

On examining the bed-tickets of the seventy-one patients it is found that in by far the great majority of cases the treatment adopted has been expectant. As a rule the following course has been adopted. The patient has been bathed (washed) on admission, and then kept perfectly quiet in bed till about the tenth day after the temperature has sunk to normal. For the most part the diet has consisted of milk, beef tea, occasional eggs, with alcoholic stimulants when indicated by the constitutional state. The medicines ordered were either salines, effervescing or otherwise, or the mineral acids Thus, it may be stated, that in no case has any treatment been adopted which would have for its object the arrest of the fever,—in other words, no methods of relief were prescribed as specifics; for although salicylate of soda and quinia were given in one or two cases, they were used for the control of hyperpyrexia; and in the same category must be placed the graduated bath. The medicines most frequently ordered have been the dilute hydrochloric acid, effervescent citrate of potass, and preparations of ammonia.

In order to reduce hyperpyrexia, the graduated bath was administered in ten cases. This subject is treated in a separate paper by Dr. Ord, in which he says:

To sum up the general results of observation and reflection, the following propositions may be laid down: that the graduated bath, reduced, during a period of from twenty minutes to thirty minutes, from between 90 and 100 to between 70 and 60° Fahr., is a powerful agent in the reduction of febrile temperatures; that in enteric fever it is most efficient and most safely applied early in the disease; that it is not contra-indicated by intestinal, cerebral or pulmonary complications, but on the contrary distinctly tends to check them; that it is contra-indicated by excessive feebleness or rapidity of the pulse, or by great exhaustion; that it is desirable in many cases of intense fever to use the bath more than once; in fact, to repeat it so long as the fever is unchecked, but not to repeat it at shorter intervals than twelve hours, an apparent revival of the temperature often subsiding after such a period. And I am of opinion that the systematic use of this kind of bath as early as the seventh or eighth day of fever is likely to contribute importantly to the reduction of the mortality from enteric fever in hospitals.

As regards the treatment of diarrhea, no astringent or other remedies were prescribed so long as the purging was not severe; but any case in which there were passed three or more loose motions per diem was treated with special remedies.

In the treatment of urgent diarrhea sulphuric acid was frequently prescribed, often in conjunction with opium, or opium and its preparations were given by themselves. In children vegetable astringents were used, such as catechu, hematoxylin, etc. When the purging became severe, and a remedy was required which should act in a short space of time, enemata with opium, or morphia suppositories (gr. ½) were used. Occasionally the tincture of assafetida was added to an enema if there was much distension of large intestine. Hemorrhage was mostly treated with ice-bag to the abdomen, and either morphia or opium by some of the physicians, or spirit of turpentine by others. This last remedy, by results, would appear to have been most efficacious. Ergot was given in three cases. The guide to the seat of application of the ice-bag has been the situation of pain and tenderness. The ice-bag was not invariably ordered when hemorrhage was suspected or showed itself, and when it was applied some astringent was also administered.

In perforation or peritonitis opium was mainly trusted to, and was given in large and continued doses. In one case it had a markedly beneficial effect upon hiccup which was causing great distress. Vomiting, if it became severe, was met by ice, effervescing salines, the subnitrate of bismuth, hydrocyanic acid, and rarely liq. strychnia. In one case the vomiting was arrested by an addition to diet.

Delirium and sleeplessness were treated with chloral in four cases. Opium was the general remedy, and occasionally bromide of potassium was prescribed, either by itself in large doses (gr. xx), or in combination with other drugs. Further, although the prime reason for ordering a graduated bath was the high temperature, the bath was nevertheless a very successful remedy in controlling delirium.

Constipation was combated in the great majority of cases by enemata, either simple ones of gruel, or with castor oil thrown in. The rule has been to give one every second or third day if the bowels were very obstinate, but not so frequently if no discomfort. Laxatives were rarely given, and only towards the end of the fever. They consisted of castor oil in drachm or two drachm doses, or of preparations of senna.

Quinia was given in three cases in large doses with a view to the reduction of temperature, but only with slight temporary benefit. To two of the above patients salicylate of soda was given after the quinia had partly failed. Finally, in a fair minority of patients, no medicine was prescribed at all, the only remedy on the bed ticket being an occasional simple enema.

As regards alcohol, the diet columns show that twenty-six, or over one-third, patients received no alcoholic stimulant whatever, or some only during convalescence. Of the remaining forty patients, thirty-three were ordered stimulants during their first week's residence, and seven only during the second week—in other words, when the fever was most severe. The quantity varied from one glass of wine to eight ounces per diem, and in one case to eight ounces of brandy.

TATTOOING OF NÆVI.*—On February 13, 1877, at a meeting of the New York Dermatological Society, I read a paper with the above title,—afterwards published in vol. iii, page 214, of the Archives of Dermatology,—giving accounts of successful operative procedures of this nature in a few cases. The present paper and case I would wish to be regarded as supplementary only to the one published; the *rationale* and method of treatment remain substantially unchanged.

Since the time mentioned the number of cases coming under my hands has, unfortunately, been very limited, and their nature and extent have rendered them very unpromising. I have, however, to present to this Association to-day a case in which the merits of the operation are fairly shown, and where the benefit has certainly been very great. It illustrates, too, various points, as to the necessarily long duration of treatment, etc.

Miss E. L. came to my office September, 1877, with a nævus of a dark claret color—the orthodox port wine stain—which involved the whole chin, extending as it did from a line transversely across the face, occupying the whole of the vermilion border of lower lip and extending on each side nearly as far as the course of the facial artery in that part of the face. The inferior aspect of the chin was also involved to a nearly, but not quite, corresponding area. Like the majority of these deformities, it was not quite circular in outline, and of well defined figure; but there were peninsular prolongations running out here and there, also on center of the left cheek a well defined dark stain about an inch (rather more than less) in diameter, the remnants of which may yet be faintly seen.

These marks, loud colored and obtrusive as they were, on a face otherwise prepossessing, were naturally a source of great annoyance to her, and she had also found them of pecuniary injury in the following manner:—having been reduced from comparative affluence to be obliged to accept a position as saleswoman in a dry goods store, her unfortunate blemish was the cause of her removal, owing to lady customers, having somewhat natural fears in the matter, who had remonstrated. So, greatly to her own and her employer's regret, she was forced to leave that position. I leave the members to judge if that would be possible now, always conceding, however, that at best some slight blemish will remain.

---

* Read by S. Sherwell, M. D., at the third annual meeting of the American Dermatological Association, August 27, 1879.

The patient, during the eighteen months subsequent to September, 1877, has been tattooed over the whole surface (with exception of a spot on the cheek, cured in one operation) twice, at intervals of months, once with chromic, once with carbolic acid, dilute; other couple of times comparatively smaller areas of the worst remaining parts have been selected and operated upon. The last operation was performed about seven months since. I have purposely postponed another, which I hope will be very effective, till October or November next, having wished to show the case before the Association, and also to take advantage of the cooler weather, which allows the collodion coating to remain on and exercise its contractile force longer when the perspiration from beneath is comparatively absent, also as being at such a time less obnoxious to the patient.

While, then, this mode of treatment is neither painless, instantaneous in results, nor, as I once claimed, never leaves a scar (it sometimes does—a small flattened one, as you may observe), I think it has advantages over all other methods with which I am at present acquainted. Certainly the method recommended by Mr. Balmanno Squire has been unsuccessful, as far as I can learn, in the hands of those in New York who have tried it; and I see no further mention or commendation of the subject from his or any other pen in the periodicals.

I have not changed my after treatment in any marked degree, and still believe in the *rationale* of the application of the collodion coat over the freshly-perforated skin, for reasons given in the published article, to which reference has been made, and recapitulation of which I spare you. My styptic applications are the same as those named, and I would in all instances recommend a tentatory or exploratory operation, with somewhat milder applications, as an index for testing the sensitiveness or idiosyncrasy of the patient.

Up to the present time I have been using an instrument of home manufacture, but am now having made by Messrs. Tiemann & Co. an instrument which will, as I believe, be neater, more effective, cause less pain, and be easily cleansed.

One or two general remarks before closing. Ordinarily, I judge that in this manner, as in all others intended for the relief of nævi, the difficulty, or at least the tediousness, of cure is in almost universal proportion to their size; the smaller nævi, as in the case before us (the spot on the cheek), disappear often after one operation. Then, again, the well known great difference in sensitiveness of the different parts of the body must be taken into consideration. The slight scarring under the chin in this case was caused by the same strength of application that was applied without anything but benefit to the parts above. Nothing but some experience in this matter can guide. Parts that are pendulous and soft, as the lips, appear more difficult to operate on, from their resiliency, etc., and do not show so good a result relatively, caused, as I consider, by the comparatively ineffective compression from the collodion coating in these situations. I think the brow, would be the most favorable site for operation, all things being equal. (Archives of Dermatology, October, 1879.)

VALUE OF DEPENDENT POSITION OF THE HEAD IN OPERATIONS ON THE MOUTH AND THROAT.—Professor Annandale, Lancet, November 8, 1879, writes:

Eighteen months ago, when removing the greater part of the lower jaw, including its symphysis, I tried the plan of allowing the patient's head to fall over the edge of the table. Although the tongue immediately fell back toward the posterior wall of the pharynx after the attachments of the tongue to the jaw had been freely divided, the man's breathing was perfectly easy—much more so than when the head was raised or lay level with the trunk. Before the patient left the theater

I demonstrated this fact several times to the students present, and thoroughly convinced them and myself of its correctness.

The experience of this case led me to place the head in the same position in my next operation on the throat (thyrotomy); and since then I have performed many operations in this way on the mouth and throat with complete success, and with great facility as regards the prevention of blood passing into the air passages, the obtaining a good view of the parts, and the carrying out of the necessary manipulations.

Among the operations in which I have used this method have been, a second case of thyrotomy, two cases of tumor of the palate, one case of large epulis, and three cases of cleft palate. In all these operations I have been impressed with the advantages of this position of the head. Complete anesthesia by means of chloroform, or a mixture of chloroform and ether, has been kept up without any inconvenience during the whole proceedings.

My present method of keeping the head in this position is to have it hanging over the end of the table and supported there by the hands of an assistant; but I am having a little addition made to my operating table, which will allow the head to be supported in this position more efficiently.

HOT WATER AS A HEMOSTATIC IN SURGERY.—The above is the title of an article by Dr. Charles T. Hunter, in the Philadelphia Medical Times, Nov. 22. After mentioning some of the causes of hemorrhage from wounds, and the routine treatment of exposure of the wound to the cold air, repeated douches of very cold water, the application of the various styptics, he gives his experience with hot water in the University Hospital, and says:

Probably in no class of cases is the superiority of hot water as a styptic over cold more marked than in those of threatened shock, and exhaustion from hemorrhage, consequent on a prolonged and bloody operation. In such cases repeated drenchings of the wound with ice cold water for the purpose of checking parenchymatous hemorrhage have the effect of lowering the bodily temperature, and, to an equal extent, weakening the natural recuperative powers. On the other hand, hot water not only acts more promptly as a hemostatic than cold, but likewise adds materially to the general temperature of the body, and thereby tends to ward off "the depressant action of a serious operation."

When I first began to use this styptic I was exceedingly curious as to what might be the subsequent progress of wounds treated with it. I have been much gratified, however, to find that serous oozing is increased in no appreciable degree, and that final union of wounds is not in the least retarded. The many advantages that hot water possesses as a hemostatic over the chemical styptics, so far as its influence on healing is concerned, will be sufficiently obvious to those who have had any practical experience in the use of these agents.

Suppositories in Vaginismus.—The following has been recommended:

℞ Ol. theobromæ, ...	ʒ i;
Potassii bromidi, ...	gr. x;
Ext. belladonnæ, ...	gr. vi;
Acid. thymici, ...	gr. i. M.

Fiat in suppositor. No. 1.

To be placed in the vagina every evening. (Ibid.)

Notes and Queries.

Dr. Littell's Memoir of the Late Professor Wood.—The College of Physicians of Philadelphia very wisely selected S. Little, M. D., to prepare a memoir of the late George B. Wood. Dr. Wood, dying at eighty-two, after a laborious life left behind him monuments in his works, well known on each side of the Atlantic, and in his benefactions, to his memory that will not soon perish. But now we have in this sketch of fifty pages, by one of the best men, noblest physicians, and most graceful writers in the medical profession, one of the most valuable and delightful memoirs of medical men. All the old students of Dr. Wood—and where are they not in this vast country?—will read this tribute with pleasure and cherish it with fidelity. We present a few extracts from the memoir. In 1835 Dr. Wood was elected to the chair of materia medica in the university, and his biographer remarks:

> "Promotion thus steadily followed step by step, and always found him equal to the labor and responsibility which it involved. He was of a nature too refined to canvass or intrigue for place, however much it might be desired; and had too nice a sense of honor, too just a conception of what was due to the dignity of the profession, and to his own self-respect, to descend into the field with rough and jostling competitors. Like the lamented Godman, whose sun went down ere it had reached its 'meridian tower,' he had nobly resolved to win success by deserving it. The posts which he attained and the influence which he wielded, were the free, and, if I may so speak, the almost compulsory rewards of patient and unremitting labor, lofty aspirations, and exemplary conduct."

In 1850 Dr. Wood succeeded Dr. Chapman in the chair of theory and practice. The special preparation for illustrations, illustrations which those of us who were students at his first course of lectures remember probably more vividly than those who came after us, are thus referred to:

"His good sense and experience had convinced him of the truth of the Horatian precept, so unwisely ignored in much of the teaching, religious and secular, of our day—

Segnius irritant animos demissa per aurem
Quam quae sunt oculis subjecta fidelibus:—

a single glance, explaining and embodying the meaning, often imparting more accurate information, and making deeper impression, than whole hours of tedious and ill-understood description.* It is surprising that a truth, inherent in the very nature of man, should be so injuriously neglected by those whose peculiar province is education; and still more remarkable that Dr. Wood should actually have been the first in this country, and elsewhere also, to introduce into the chair of medicine the system of ocular demonstration. He had proved its utility and its superiority to the oral and didactic method then in vogue, while occupying the chair of materia medica; why should it not, he rightly thought, be equally useful, though perhaps more difficult of accomplishment, in teaching that to which the materia medica is merely subservient? In order the more fully to prepare for the new and arduous duties now devolved upon him, and with special reference to his intended system of instruction, he made a voyage to Europe, visited its most celebrated schools, and spent many thousands of dollars in the purchase of models, castings, and drawings of various pathological lesions. These formed a cabinet of morbid representations unique in this country, and supplied material for a course of medical tuition which was as instructive and satisfactory as it was interesting and novel."

The great success of Dr. Wood's writings is mentioned on page 46:

"Of his three most important publications—the Dispensatory, the Theory and Practice of Medicine, and the Treatise on Therapeutics—the sales respectively have been one hundred and twenty thousand, thirty-six thousand, and twelve thousand copies. The aggregate of his published writings exceeds seven thousand octavo pages."

It certainly surprises us to be told by the biographer that Dr. Wood was the author of an epic poem, printed in England and published anonymously, and that among his manuscripts are numerous poetical translations, original poems and an unfinished work of several hundred pages. We make a final extract from this admirable sketch:

"Nature had given him a sound constitution, and had endowed him with good abilities which he had diligently improved; gaining, like the faithful servant, ten other talents besides them. His superiority to other men consisted in his mental equipoise, clear perception, and steady application, rather than in any extraordinary, original powers. He attained eminence less by what had been done for him, than by what he did for himself. He had a lofty ideal, with great perseverance and tenacity of purpose; and with laudable ambition resolved from the beginning to win a high place in the Temple of Fame. It was this noble aspiration which led him to 'spurn delight and live laborious days.' His great talent, the common property of all who excel, was his capacity and disposition for work. He had set before himself a definite purpose; and the satisfaction he derived from the pursuit, the opportunity which it afforded of benefiting others, the self-discipline which it involved, and the training and development of his own faculties, were, other considerations apart, abundant recompense for all his toil. In this he acted with the enlightened forecast that makes both worlds its own; for though Christianity has respect to the moral rather than to the intellectual, the sage declares, what reason also approves, that—

---

*I have heard of Thee by the hearing of the ear, but now mine eye seeth Thee.—Job, xlii. 5.

'The more our spirits are enlarged on earth,
The greater draught shall they receive of heaven.'

One common fate awaits alike 'those who creep and those who fly,' but Dr. Wood nobly determined to be among the distinguished few whom posterity will cherish, rather than sink into oblivion with the unrecorded multitude; to make his path luminous with deeds of love to man; and to leave the world more blessed for his pilgrimage through it.—'Behold I have not labored for myself, but for all them that seek wisdom.'"*

MEMORIAL ORATION IN HONOR OF EPHRAIM MCDOWELL.—There is no half-way work on the part of the Kentucky profession. They were not content with merely erecting a monument in memory of the achievements of the great pioneer in ovariotomy, Ephraim McDowell, but they made the dedication of this monument memorable by an oration from the most famous of American surgeons, Samuel D. Gross. And now in a handsome volume, a perfect gem of the publisher's art, they issue the address of Dr. Gross, correspondence of invited guests, etc. Engravings of Dr. McDowell and of the monument adorn the book. All things seem in harmony—the noble purpose so successfully executed, the oration worthy its great author and the great occasion, and the very beautiful record made of it by J. P. Morton and Co.

Dr. L. S. McMurtry, of Danville, was chairman of the McDowell Monument Committee, and to him, for wise and indefatigable work, great praise is due. So, too, the Committee of Publication—Drs. Coleman Rogers, Preston B. Scott, and J. W. Holland—deserve commendation.

---

* Ecclesiasticus.

Let us not forget to state that the volume contains the remarks made by Dr. Cowling, in presenting Dr. McDowell's door-knocker to Dr. Gross. That brief speech of Dr. Cowling—tender, touching, simple, beautiful! His words will make perpetual music, fitting accompaniment to the fame of the mighty dead surgeon and of the oration of the famous living surgeon.

A Medical Hero.—We reprint from the Edinburgh Medical and Surgical Journal the following obituary notice of an honorable member of our profession:

Those of our readers who knew "Charley Smith of the Diana," will read with sincere regret the announcement of his early death. The history of that terrible winter in the Arctic Seas—never published *in extenso*, and but partially revealed in fragments—caused a deep throb of emotion throughout the profession. Deserted by the other whaling-vessels, the unfortunate "Diana" of Hull was left amidst closing ice in September, 1865—without provisions, without winter clothing, without fuel. On Christmas day the captain—Captain John Gravill—died of cold and exhaustion. Their spare spars, their boats, save one, were burnt to melt the ice for drink. In a little time half an oil cask per diem was the allowance of fuel; a biscuit and a half per diem their scanty ration, in the Arctic Seas, in a winter of unwonted severity. As the only educated man among them, the management of the ship and crew, after the captain's death, devolved upon its doctor. An Essex Quaker, the surgeon manifested all the passive courage of his sect. He took his turn at the pumps, which were going day and night, the ship having received a severe nip in the ice. By his example he animated and cheered the crew to work at what seemed a hopeless task. Then scurvy broke out, and many of the enfeebled wretches, on their miserable dietary, died on slight effort. With their swollen, bleeding gums they mumbled their biscuit, and ran "their race with death," as Captain Allen Young has designated this memorable voyage. When the death-stricken vessel drifted into Ronas Voe, in the Shetland Isles, in April, 1866, only four men could stand. Of the crew of fifty-one men, the captain lay in an ice-bound grave, while nine corpses lay stretched on the deck, and four more of them died before the ship reached Lerwick. When the "Diana" entered the port of Hull, thousands of people assembled to greet the ill-fated vessel. Charley Smith was recognized as the master-spirit to whom were due the lives of the survivors—the safety of the ship. Modest, courteous, diffident, unwilling to speak of his own deeds, Smith found himself a recognized hero. His reception was more than enthusiastic. The profession *fêted* him in public. The Board of Trade presented him with a case of surgical instruments which cost fifty pounds, accompanied by a testimonial signed by the President, declaring that his services had been "generous, humane and unwearied." The townspeople of Hull and the underwriters of Lloyds presented him with a testimonial, and a purse containing one hundred and eight guineas. Many months of illness and exhaustion followed this long and terrible strain; and it was some time before Smith could resume his studies. When he returned to Edinburgh, one and all, teachers and fellow-students, welcomed back the genial, pleasant youth whose experiences had been so dreadful, and who had borne himself so heroically. Nothing, however, could overcome his repugnance to any perusal of his diary with a view to publication. Scraps and fragments of his story occasionally fell from him, telling of what straits he had passed through, of what a tremendous tension he had endured. Not feeling equal to study, he resided with Dr. Moffat, of Dalston, near Carlisle, working as his assistant. A general favorite, full of genial humor, no mean poet, the pleasantest of companions, "Diana Smith" was known far and wide. During this time Sir Roderick Murchison induced him to join Mr. Lamont in a Polar expedition; and few who knew Smith will forget his descriptions of scenes in Spitzbergen. A keen naturalist, from his very childhood he was familiar with every beast and bird. When only twelve years of age he noted that the martins never builded their nests in the afternoon, but left their work to dry while they were engaged in search of food. After a year or two of comparative rest he resumed his medical studies in Glasgow, where "Diana Smith" won a reputation for earnest application. He made an excellent appearance for his diploma, and became house physician to the infirmary, where his discharge of his duties was most exemplary. His clinical reports are described as "models of correct English and careful observation." After trying a practice in Durham, he gave it up, and went as surgeon in charge of the emigrant ship "Dunedin" to New Zealand, where he settled in practice at Otepopo. Here he soon gathered friends around him, and was beloved by the Maoris; he was made a magistrate, so great was the respect for him. He married, and had a very extensive practice, when his health broke down. The final act, which completed what over-exertion had been only too successfully essaying, was diving in the harbor for the body of a drowned man, which after repeated efforts he succeeded in recovering. A life of self-sacrifice culminated in this effort, and a severe ulcer of the stomach followed the exposure. He disposed of his practice, and came home with his wife and child, in the hope that this would restore his health—in reality to die. Worn, wan, wasted, waxen—he met death calmly and composedly, as he had faced it many a time and oft before. The old man, the playful humor passed away, and religious convictions took their place. Quietly, in his Essex home, the wanderer went to his rest in peace. After all his perils in various parts of the globe, "Diana Smith" died in bed under his father's roof-tree in September last, leaving the sorrow-stricken old man to furnish what comfort he could to the girlish widow and her fatherless boy. To this boy he has left the manuscript diary of that fearful winter in the Arctic Seas. Many will regret that he has thus prevented the publication of the record of his sufferings and his heroism until they will be well-nigh forgotten; for one and all of his hundreds of friends would have been glad to possess, in the form of a book, a memorial of a man who did honor alike to his profession and to humanity. J. M. F.

COMPLIMENTARY DINNER TO PROF. S. D. GROSS.—Lindsay and Blakiston have issued, in very handsome form, a volume of forty pages with the above title. The readers of our journal know the history of this memorable dinner, and have had given them some of the good things that were then said and done. The book contains an excellent likeness of Dr. Gross, the speeches made by him and others, and the letters from invited guests who were unable to be present.

ACUTE INVERSION OF THE UTERUS.—Dr. Kemper's case of this accident, published in the *American Practitioner* some months ago, is republished in a recent number of the *Gazette Obstétricale.*